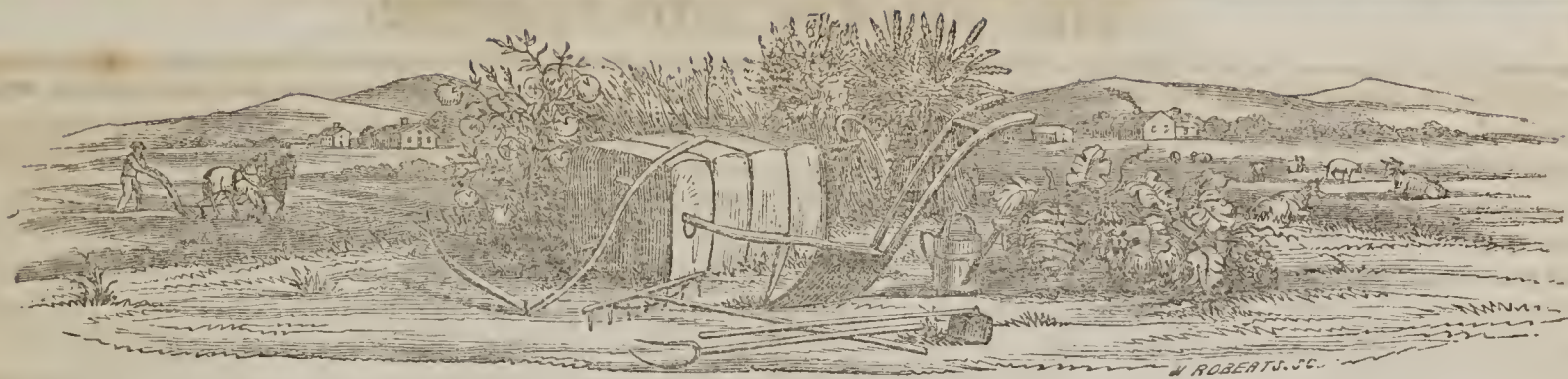


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FARMER AND PLANTER.

DEVOTED TO AGRICULTURE, HORTICULTURE, MECHANICS, DOMESTIC AND RURAL ECONOMY.

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On the Cultivation of Rice in dry Seasons on Cooper River.

THE experience of the last seven years must have satisfied all who live on the lower part of the river, that one of two things must take place; either we must abandon the culture of rice, and substitute some other grain less aquatic in its propensities and requisites, or we must adopt a mode of culture rendering us less dependant upon water. The former alternative is painful to think of, and will be more so to execute. The latter, therefore, demands our serious attention, and undivided efforts. We ought not to despond—but, by continual observation, by interchange of opinions and views, by communicating to each other our success and our failures, by giving our plans and operations in detail, elicit each from his neighbor what may be most advantageous and useful to all. It will not avail us to stand still, and bewail our misfortunes; if wants had never been felt, progress would never have been made in any thing, and labor both of body and mind is necessary to our well being. "I will try" is a motto that the Agriculturist should never lose sight of; difficulties vanish before efforts. Let us not

forget that the peach was originally a poisonous almond—that the abundant bearing cherry was the offspring of a plant which produced but one berry on each stem—that nectarines and apricots are but the hybrids of the plum and peach. With all these facts before us, who can doubt our ability to improve the culture and the quality, and, if necessary, the species of rice. Feeling deeply the importance of learning all that I can, and communicating the little which I know upon the subject, I have ventured so far to trespass, as to throw together a few observations upon the culture of rice in dry seasons.

Like my neighbors I have suffered from the droughts which have prevailed for several years; yet with the exception of '44 and '45, I have never made as little as an average of 50 bushels to the acre. This result has I think been influenced by some peculiarities in the mode of preparation of the land, and culture of the grain. In common with all around me, I have good banks, tight trunks, and ditches sufficiently deep to keep the fields dry. The land is turned deep in the alley in preference (for many reasons) to turning flush, or digging up the whole surface. A half acre to the hand, is done with ease. It is then chopped three quarters of an acre to the hand and put in fine tilth. It is then trenched deep, very deep, and all of the earth put on in covering the rice. This deep trenching is one of the peculiarities in the mode I adopt, and is of the utmost importance where we have no water—indeed, in my opinion, it is essential to success. Planted deep, and well covered, rice is protected from birds, does not suffer from the parching rays of the sun, and finds a cool and moist earth in which to shoot its tender roots.

So far as my experience goes, it is not attacked at so early a period by bugs as when planted on the surface, and is always far more vigorous in every stage of its growth. If the season becomes wet, it sustains itself better from the fact that its roots are not exposed to the sudden transitions from inundation to the parching heat of the summer's sun. If the drought is excessive, it has been placed so deep, that its roots are cool—in the neighborhood of moist earth, into which they will most assuredly penetrate. The rice being out of the ground, I use the hoe often, but very lightly; the earth about the roots should never be disturbed, and the surface alone should be cleaned to give it air, and allow it to tiller or branch. In my opinion as much mischief is done the rice in dry seasons by the hoe as by the grass, and what is termed by overseers "a good deep working," will, in great drought, as effectually diminish the crop, as any means which can be adopted. In such seasons as we are referring to, the only deep working which should be permitted is deep turning and deep trenching. When we have water for the first time, late in the season, as towards the close of May, much judgment is requisite in its use. The age of the rice, the labor it has to perform, and the time allotted to the task, ought to be kept in mind. If we attempt to treat rice late in May, as we would in April, forgetting how much nearer we are to the process of jointing, the rice becomes sick, the joint is formed, the ear is elaborated and shoots, but the plant never recovers sufficient health and vigor, to perform its duty with success; deep water at this stage, and under these circumstances, is necessarily fatal. Where we cultivate good lands and have an abundance of water,

little *thinking* is necessary to ensure a reasonable degree of success; but when the reverse of this takes place, and we have no water until late, and then a superabundance of it, it requires much discrimination and reflection to avoid doing mischief. My deliberate conviction is, that in 1848 more mischief was done in my immediate neighborhood by the injudicious use of water, than would have occurred if we had trusted wholly to showers. The period for long water had passed, and although the rice was short, it was growing and gaining strength, though not height. It was too late to stretch, and consequently to weaken it; it would not have time to recover; it would joint and form the ear while it was weak and feeble, and the fruit would of necessity be diminutive and small. But the long water was unnecessary, in as much as the rain which had freshened the river, had saturated the earth, and it was too late to kill grass by any flowing we could put on. These reasons were urged, and many more added, but they were not heeded or acted upon. Most of the rice was flowed deep, and some of it covered up, and all of it was of necessity weakened and enfeebled. The crops, where this system was carried out, never recovered, and never could recover for want of time—while on the contrary those which were not flowed, but allowed to go on until ready for joint water, made a full and abundant yield. My own impression is clear and distinct, that we use too much water with rice to which we profess to apply the dry culture. I do not intend to make any objection to the water culture. On the contrary I highly approve of it, and often practise it with entire success. All I wish to be understood as saying is, that when we take the old fashioned mode of sprout water, long water and joint water, the interval between the two last should be as long as possible, and the practice of *ducking rice*, as it is termed, or, in other words, putting the water on for one or two tides, should be scrupulously avoided, except under very grave circumstances. Unless we use joint water, no deep water is admissible on rice after it is sprouted, until the joint is forming; and however much we may improve its looks by a contrary course, the result is not, and cannot be, satisfactory. There is no excuse for it but the pressure from grass, and this should not occur under ordinary circumstances, when the land cultivated is not disproportioned to the force on the planta-

tion. When long water is put on rice, it should be kept covered as short a time as possible, only long enough to wet the high places in the field, but not sufficiently long to stretch the rice much. The experience of a very close observer teaches him that when long water goes off and leaves the plant attenuated and feeble, we rarely make a full crop, and the reason is (as above stated), that there is not sufficient time for the plant to recover before it joints and puts out the ear.

Closely allied to the subject under consideration, both in interest and importance, is the question "how long can the water be kept on our fields when the river itself becomes salt?" Until recently very little attention has been given to this subject, and the period after which water would become unfit for rice when the river ceased to be fresh was received upon the "say so" of those who had formed opinions on insufficient data.—The general opinion I believe was, that a week or ten days was the limit, but more accurate attention has satisfied us of the error into which we had fallen. I am aware that showers will do much to retard the progress of salt water, and the sickening qualities of sour water, but after making all due allowances for these things, it must be admitted that we have been much mistaken in the length of time during which we can with safety hold on water under the circumstances stated. During the last summer I had ample opportunities of testing this matter, and the result was very satisfactory. On the 7th of July learning that the water was hard a few miles below me, although the rice was not quite ready for its use, I determined to put it on. On the 10th (I find by reference to my journal), the water was still more hard, and on the 15th was utterly unfit for use. This state of things continued with me up to this day. But from the 7th of July I tasted it sometimes daily, always weekly, until the field was dry for harvest. Each week I expected to be compelled to run the water off, yet each week found it sufficiently good to be kept on, until the 5th of September, when the crop was ready for the hook.—Thus it appears that the river was unfit for use for more than fifty days, during which time the rice continued under the same water, and so far from suffering made a full and abundant crop. It is not my intention to make any comments upon these facts, having already trespassed too long on the business of the society, but I am desirous of calling the attention

of this association to them, in order to elicit observation and to impress upon our younger members the necessity of ascertaining for themselves facts, upon the proper comprehending of which depends much of their future success as agriculturists.

All of which is respectfully submitted by
B. HUGER, M. D.

The above paper was read before the Strawberry Agricultural Society, S. C., at its anniversary meeting, held 9th of April last. It is truly a pleasure to place such a report in our columns. Those engaged in rice growing will take an especial interest in reading the views expressed by Dr. HUGER. As some return for this favor we hope some of those most excellent planters on the Waccamaw, Ogeechee, and Ashepoo will forward to us for publication communications upon the same branch of agriculture. A year ago we published an able report from Dr. R. E. ELLIOTT on the culture of rice, and desire to remove all doubts, if any there be, that the pages of the Farmer and Planter are wide open at all times for such essays.—Eds.

Cherokee Rose.

MESSRS. EDITORS:—In the April number of your paper, a writer under the signature of "J. P. B.," in bringing to the favorable notice of your readers the great value of the Osage Orange, has attempted to detract from the merits of the Cherokee Rose by urging objections which experience proves to be wholly incorrect.

In the outset of his article, he claims a preeminence for "his pet" over the whole vegetable world; then giving a graphic description of his live fence, he says, he "*thinks* he now has a barrier against hogs", and enquires in rather a boastful manner, "will the Cherokee Rose beat this?" To this enquiry we unhesitatingly and without the fear of successful contradiction, reply that it will. That a Cherokee Rose hedge of four years growth, planted and treated as we directed in a former article, could not be penetrated by the most powerful bull, and that even J. P. B.'s "piratical old offender" could neither be coaxed nor forced through a *three year* old hedge, backed by all of his dogs and negroes.—Again J. P. B. says that the orange "has advantages over the Rose." Before he makes this assertion, we beg leave to propound the same query to himself that he has put to Broomsedge—"has he tried" the Cherokee Rose? Does he speak from his own experience, or from hearsay? We should judge from the last part of his communication, in which

he says, "the Rose may be the thing," that he has never tried it; be that as it may; if he speaks from experience, it differs very materially from that of those persons who have now, in this country, many miles of this fence in successful cultivation. If from hearsay, we would again proffer to him his own kind advice to Broomsedge—"be a little cautious."

One of the objections that J. P. B. urges to the Cherokee Rose, is, "that the Rose is an evergreen, and that the cattle would browse upon it all the winter, which would have a tendency to destroy the hedge." Here J. P. B. labors under a mistake. It is necessary that the branches of the Rose should be annually pruned and shortened, to promote an impervious and impenetrable growth, and it would prove an essential benefit instead of an injury, as he supposes if the cattle would crop the young tender limbs. More than this they cannot do. This must be obvious to every one who has ever seen this Rose, as the branches are armed on every side with a very stout and sharp thorn upwards of an inch in length, which will produce a very painful and deep wound, even through the hides of cattle. We would also suggest to J. P. B. that his cattle, if fed frequently and abundantly upon corn and hay, would feel no desire to browse upon live fences, which they no doubt would find as unpalatable a meal as it is a thorny and dangerous one. Again J. P. B. urges that the Rose is subject to die out in "long patches." To this objection we respond, that such is not the fact in this State, although such may be the case in Carolina.

There are many miles of the Cherokee Rose fence in this county and State, yet we have never seen or heard of "its dying out in long patches" until we read J. P. B.'s communication. It is true, when the cuttings are just inserted in the hedge course, that some of them will not take root, but this is always remedied by planting them thicker than it is intended they should remain in the hedge. Our cotton plants die out, but who ever urged it as an objection to the cultivation of the cotton crop, that we frequently have difficulty in procuring good stands? And yet another objection is urged that it requires more care to keep in fence bounds. We again reply, that a hedge properly planted, pruned, and its branches interwoven as we have directed in a former communication, will not require more than one fourth the room of the common

fences of the southern states, and not one fourth the labor and expense. We think, Messrs. Editors, that we have fairly met and answered all the objections which J. P. B. urges against the Rose, and in conclusion would advise him to give it a fair trial and he will ere long be convinced of his errors, and the truth of our assertions. HENRY.

Canton, Miss., June 21, 1851.

Less Cotton—More Corn.

MESSRS. EDITORS.—I have never been in a public capacity very active, knowing myself so incompetent for such duties, but I feel disposed at this time to request you and your many able writers, to consider the present practice of planting at the south, and give your advice to the many planters and see if there cannot be brought about a better state of things than now exists among us. It seems that the planters are determined to reduce cotton to four or five cents again by overplanting, though they ruin themselves by it. They plant cotton to make money, and succeed but not to put in their own pockets, for by the time they sell their cotton, here is Mr. Clay's regiment with their mules, and the free soilers with their grain to receive it. The planters both old and young, great and small, with but few exceptions, planted so little corn, that there are but few who have enough, and so few that have any to sell, that there seems to be a great scarcity in the country, without sending any to the towns, so the towns must get their grain from the North or do without. Some of our richest old planters have been buying corn for months, and you may be sure it is worse with those who are not so wealthy. I met with a rich old gentleman in the spring who soon began to advise me about planting my cotton, as I was then planting. I was grateful to him for his counsel, for it is to the aged that I always go for advice. But the gentleman, although an excellent planter, has been buying corn for nearly two months. If you can persuade planters to adopt a more judicious mode of planting, so as to make grain for the southern market, and plenty for their wants all seasons, you may assure them that they will make more money than they do now, and they would make it for themselves, and not for their enemies. If there were but two million bags of cotton made instead of three, it would sell for more money, and the planters could make their own grain and raise the most of their stock, and have the

money they make. A man is not very thrifty who will lose a dollar to make a dime.

Last winter a cousin of mine in Augusta, who sells corn for planters on commission, was enquiring of me the quantity of corn that would go to that market from this neighborhood; I replied that there would not be much, for there were more buyers than sellers, and the buyers would want near or quite all that was to sell. He said to a person present who had just asked him to send him a few wagon loads, "you will have to pay higher for corn." Did you hear what this gentleman said? A large portion of the corn that is brought to this market comes from his section. He said the free soilers would supply them—that they could make corn cheap, and they would send plenty. I learned after he left us that he was raised at the north.

A few words to the gentleman of Spartanburg on late and deep plowing. I was raised a planter and of course a practical one. I have seen many fields of corn injured by being plowed deep when it was large. Break deep and plow deep, when the corn is small, but when large plow as shallow as you can to kill the grass. I have seen and had corn, when it was nearly all silked out, part of the field plowed and part left unplowed, for fear of injuring it in time of drought—that which was plowed was about one-third better than that which was unplowed.

Respectfully yours,

B.

Strawberries.

The following from the "Working Farmer" is corroborative of what we recently said of the value of spent tan bark for strawberries. It is too precious a manure to be thrown away. There is a bank near us upon which our eyes have been looking greedily for months.—We would suggest to the lord of the premises whereon it lies, that it is not safe so to tempt us, for we can scarcely resist the inclination to take and carry away contrary to propriety in such cases made and established, and cannot guarantee that our moral principles can long prevail against our avaricious disposition.—Apply it, neighbor, to the strawberry bed or the peach orchard, and, when this has been done, use the remainder as an absorbent in the stock yard.

"We are again enabled to record the beneficial effects of tannic acid applied to strawberries, and even spent tan, if partially decomposed so as to render the

remaining portions of the tannin soluble, produces like effects. We last year planted a bed of Hovey's seedlings, with an occasional plant of the Boston pine, and covered two-thirds of the bed with a light coating of spent tan in the fall. The result is, that the portion of the bed to which the tan was applied, is now yielding four times as much fruit per plant as the other part not so treated, while the beds to which we applied the dilute bark liquor two years since, still continue to yield extraordinary crops, and of superior size and flavor. A berry of *Myatt's Eliza*, pulled yesterday, June 7th, measured $4\frac{1}{2}$ inches in circumference, and although larger than the average, will give some idea of the general size, as compared with the same kind of strawberries differently treated. When bark liquor is applied to the beds, it should be diluted with 100 times its bulk of water.

Yellow Clover—its History, Management, Etc.

In our July number we gave our readers an article from the pen of Dr. H. L. Kenon, on the subject of yellow clover, which has produced quite a sensation amongst the farmers and planters of the south, and in order that our friends may be as well posted as possible through the columns of our paper, we give below, further testimony in favor of the valuable plant, by Mr. J. C. Snedecor, who, it seems, received his first seed from Dr. Kenon. We also give the remarks of the editor of the *Alabama Beacon*, from which the article is taken. We have ordered some seed and shall, we hope, by another year be able to report from our own experience.—Eds. F. & P.

As the time for sowing yellow clover seed is close at hand, and as the public know but little of its history, we have thought the republication of Mr. Snedecor's letter—which appeared in our columns some three months ago—would be of service to some of our readers. Having recently met with Mr. Snedecor, and had a conversation with him in regard to this clover, we state, that, after experimenting for several years with most of the different grasses that have been introduced into this section, he has found none that he considers, all its advantages estimated, at all equal to the yellow clover. In regard to the time of sowing the seed, Mr. S. says that it may be sowed at any time, when seasonable, from the middle of July to the first of November; though he thinks the month of August the best time.—*Beacon*.

Dear Sir:—I received yours of the 24th December last, in due course of mail, and would have answered it at an earlier period had my health permitted. Your questions in relation to yellow clover, I will answer as well as my experience will permit.

Your first question seeks to obtain a history of the clover, how it was obtained, and how long have I cultivated it.—

The only knowledge I have of its history I derived from Dr. H. L. Kenon, who, while on a visit to Mississippi some seven years since, obtained some of the seed from Mr. Kirksey, a relative now deceased. The Doctor stated, to the best of my recollection, that Mr. Kirksey had fenced in about an acre of an Indian old field near his mill to keep his oxen in, and that in September the clover made its appearance, and grew so luxuriantly that ample grazing was afforded for the oxen, and two or three milch cows during the fall, winter and spring.

Dr. Kenon gave me a moiety of the seed he had obtained, which I planted carefully on about two acres of ground, in the interior of a half acre lot. It came up and grew finely, until the latter part of May, when it matured, leaving a quantity of seed detached on the ground. On examination, I found the roots entirely dead, and supposed that it would have to be re-sown annually, and from the seeming difficulty in collecting the seed, judged it would not be profitable, and under this impression, converted the lot into a cow-pen, sowing it in turnips every August, for three or four years.—On the third year it became very dense, covering up the turnips while in bloom, and spreading to the confines of the lot. The fourth year it smothered out the turnips entirely, and I was satisfied it was adapted to this climate, and our wants, and better suited to a cotton country than any winter grass could be whose roots were perennial, as the ground is as easily broken as that of the common stubble, and for the seven years that I have been cultivating it, I find that I always have had an ample stand without re-sowing.

In answer to your second interrogatory, I will state, from my experience, that it should be sown in August. I think it will grow well on almost every variety of soils, except upon wet, marshy land, upon which water lies in the winter and spring; it will, however, yield more on rich clay lands. It does well on post-oak lands. The soil should be well prepared previous to sowing, by a good dressing of stable or other manure, if the ground be old, and thoroughly ploughed. The seed should then be sown broadcast, quite thick, and ploughed in with a scooter, and brushed or harrowed. A better mode would be to draw a heavy clod crusher or roller over it to render the surface smooth. This should be done about the middle of August, and if by the tenth of September your ground be foul, re-plough with a light scooter, and make the surface again smooth. Your clover will then come up in a few days, if the weather be seasonable, and take care of itself. It is difficult getting a stand with this clover the first year, but when once obtained, you have no further trouble with it.

I cannot satisfactorily answer how much seed should be sown to the acre.—I put from twenty to twenty-five gallons to the acre last fall, but owing to the excessive drought, it did not come up until after the rain in November. That rain,

you may recollect, was succeeded by a heavy freeze, which threw most of the seed to the surface, and I have a bad stand. It is, however, the only fall in seven that the clover has not come up within September. It is almost throwing time and labor away to sow this clover late in the fall, as it comes up badly and grows off feebly. When it gets an early start, cold weather does not seem to check its growth, and it will be from a foot to eighteen inches high by the middle of November, on well prepared land.

In answer to your third interrogatory, I state, that the object in my answer to your second, in directing the clod-crushers to be used after sowing, is to prepare for saving seed. When the clover is fully matured, the seeds fall from the plant and are saved by raking the straw off, and then, with a common or brush broom sweeping the seed into heaps of several bushels. They are then passed through a riddle or coarse sieve, sufficiently large in the meshes to allow the seed to escape. This takes out most of the straw and coarser clods and trash. They are then passed through a finer sieve, which allowing the dust and finer clods to escape, retains the seed in a tolerably clean condition; the state in which they are sold. I find that a hand may save one hundred gallons, probably more, in a day. One acre of good land, well set in this clover, will yield from ten to fifteen hundred gallons.

Your fourth interrogatory is, as to its manner of growth, the number of shoots from the root, and their size and length; and your fifth interrogatory is: What amount of grazing will an acre of this clover bear, and for what period? I will, for convenience, answer the last first; as I have but little experience, I will answer that. In November, 1849, I turned six or seven calves on my clover, it being then about a foot high, and occasionally from one to three grown cattle, and every Saturday and Sunday, five head of horses and mules. About the 15th of February, I found it had not been reduced in height, although the stock were very fond of it. I then turned in an addition of all my cattle and sheep, about fifty head, and it took until the first of March to eat it level with the ground, or as close as sheep and other stock can eat grass—in addition to this I turned in a number of hogs daily for a few hours. My object was to see how it would bear close grazing, and I removed the hogs, as I had not more than an acre, and a bad stand on half of that, for fear they might root it up, and impair the stand. On the 1st of March I took every thing off, and about the 1st of June, one of my neighbors (Mr. Holbrook) drew up, without selection, and measured it. It was seven feet long. Its manner of growing is therefore rapid. The size of the straw is about the same as that of red clover. Its shoots are numerous from each root, and it grows as thick as it can stand on the ground. It matured last year about the 20th of June; previously I never pastured it, and it matured some time in May. You can, from the

size when I commenced grazing, and its growth after the stock were taken off, infer the period it might have been grazed, with more accuracy than I could.

Your sixth interrogatory is, what quantity of vegetable matter will be restored to the earth when not grazed at all, and what amount when grazed until the 1st of March, April, and May? It grew rapidly in the fall and winter, and yields a large return of vegetable matter, and a denser shade than any other grass I ever saw, both of which have a fertilizing influence. My first crop was sown in drills, and only grew in the whole season, about seven feet. The only additional fertility was given by the clover.

I will state that my experiments have been on ridge land in the river bottoms—growth, chestnut, pine, maple, gum, a variety of oaks—not much sand, not resembling the black lands in color, and the clay, of good quality, of a redish cast, and containing but little sand. This land was from the first in as good condition as manuring and plowing could make it.

In answer to the seventh interrogatory, I will state, that the seed may be delivered in July and early in August.—Price, \$1 per gallon, dry measure.

The good judgment manifested in yours, and the close application of your questions to the subject matter, make me regret that I could not answer it earlier and more satisfactorily.

Yours, resp'y, J. C. SNEDECOR.

To Col. Isaac Croom.

Catalpa, Green Co., Ala., March, 14, 1851.

P. S. My post office is Forkland, Greene Co., Ala. I never send off less than \$5 worth of seed, except to such only as cannot by public conveyance get the seed in the bur. I send, for five dollars, five ounces of clean seed, which goes well in a letter, but it is cheaper and better for the purchaser, where he can do so, to get in the bur. J. C. S.

Forkland, July 1, 1851.

Drying Fruit.

Now is the time, if it has not been attended to, to dry fruit for winter use. It is already too late for many varieties, but not for the peach and apple. Almost every description through the whole catalogue, from the peach to the much despised but yet wholesome blackberry, is richly worth preserving. There is a greater necessity for our drying fruit in the south, than there is in those parts of the states where the temperature is lower, and consequently the difficulty less in keeping it in the natural state. There are various methods of effecting the object. It is a good practice to immerse peaches in a basket for a few minutes in water at the temperature of boiling. Then they should be opened, the stones taken out, and the pieces spread out with the pulp upwards. Thus exposed in four days of favorable weather, they will become sufficiently dry and may be packed away in boxes to be used at will. The Farmer's and Planter's Encyclopedia says, in France, peaches and other fruits are dried whole. Being pared they are boiled a few minutes in a syrup of one pound of sugar with three

quarts of water, and when drained by being laid out singly on dishes, they are placed in the oven after the bread is taken out, and, when dry, put in boxes.

The New York Sun says the following plan has been in use in Maryland for some years past. It is without doubt excellent, as it involves the same principle as the method of preserving Tomatoes which we have tested and gave in our last number:

Prepare canisters in the best manner of good tin—about seven or eight inches in length and five in diameter. The fruit selected for preservation should be just ripe and no more, free from specks and bruises. When the canisters are filled, solder on the tops carefully, leaving a small hole as large as a pin in the top, for the escape of air. The canisters are then to be heated by placing them in boiling water nearly up to the top, until the fruit within has obtained the same temperature as the water. This is ascertained by placing a drop of water on the pin hole, which will continue to bubble as long as air escapes from the canister. When the internal temperature is equal to the water, no more air will escape, and then a drop of solder is to be applied to the pin hole. If the operation has been properly conducted, the ends of the canisters, after cooling, will become depressed in consequence of the pressure of the atmosphere. The heat thus applied does not cook the fruit in the least: it dries them. The canisters when filled and sealed should be kept in cool places. In this manner any one can preserve peaches, strawberries, and all kinds of fruit in the most perfect manner. Fruit when thus preserved are as good at the end of six months or more time as when first gathered.

Scattering Thoughts.

MESSRS. EDITORS:—While Mr. Page is amusing our friends at Washington with his magnetic locomotive—Mrs. Bloomer and the Syracuse Standard are lauding the late innovations on the rights of the gentlemen—Abby Folsom pressing to notice her new schemes of reform, and last, though not least, friend Davis with all the host of *spiritual knockings* is electrifying the world, is there not some danger that the attention of the country will be so completely absorbed in these super-natural things, that the Plough and the Loom will come to a stand still; and more especially since some of your very able contributors, as Broomsedge, Pry, M. W. Phillips, and others seem to have retired from the field? Though unaccustomed to wield the pen for public view, I must, nevertheless, for once, raise my voice, if not against Page, &c., certainly in favor of things more indispensable. I draw the bow at a venture, and if you think I *darken counsel without knowledge* you can just throw it under your table.

It appears to me there is a marked difference between a Planter and a Farmer, as the caption of your valuable sheet would indicate. I have been planting for the last twenty years, and yet, I confess, I am a poor farmer. A combination of the two would suit a southern perhaps better than a northern latitude. I say a man should not only plant cotton but first plant a little more corn, wheat, potatoes &c., than will do him—raise his own meat, mules, and, indeed, everything that may be necessary for family and plantation use, and not plant too much to the hand—

always allowing time for repairing fences, righting up plantation, making manure, ditching, cleaning up swamp lands, &c., &c. The man who follows this course will, at the end of five years, find himself a wealthier and a happier man than the planter who is devoting all his energies to the culture of cotton, as some do, regardless of other matters. The plan of your able correspondent, M. W. P. on "Mixed husbandry," is certainly an excellent one.

As the time has gone by, it is unnecessary to give any views as to the manner of preparing lands, time of seeding, &c., I will only remark that I am trying some experiments with plaster, coal-dust, &c., which I may give hereafter.

I suppose by this you will conclude I stick very close to my text; "scattering thoughts."—The great difficulty with me as a planter is, drought or want of moisture. In old, worn countries like ours, it is painful, after having good prospects in May and June, to have them destroyed by a spell of dry weather in July. There is doubtless no positive remedy in the planter's hands—it rests with a higher power, with him who has said "the early and the latter rain shall descend alike on the just and the unjust, that there may be bread to the eater and seed to the sower." Nevertheless, would not deep subsoil plowing with rows and stalks at a proper distance be something of a substitute? I think some experience has brought me to this conclusion. I say to all my brother planters, try it. It is not worth while to make excuses, and say there is danger of losing too much ground—it is too much trouble and expense, to drive a team instead of one horse, and such other frivolous things. I tell you my brethren "*craft is in danger*," the old plan of scratching along the surface—no ditching, no manuring &c., must be changed for a better, or we shall have to leave the land of our nativity—leaving the bones of our ancestors, and indeed all our youthful associations, however dear, to be taken care of by those who leave behind us.

I remarked above, that the great enemy to the success of the planter in this region was drought. I must add another, in the *Nut grass*, or, as is denominated on the coast above and below New Orleans, the *Cocoa grass*. We have been so far unable to eradicate it even from our gardens.—To give its history would require more time and space than is allowed me at this time, only remarking it is the grass of all grasses, easy to propagate and almost impossible to exterminate. If any of your readers will give us through your columns from experience, an efficacious plan for destroying this our greatest enemy of the grasses, it will confer a great favor.

Yours, &c.,

W.

Winnsboro', S. C., July 18, 1851.

The Great London Exhibition.

WE make the following extracts from letters received by us from Mr. Johnson, the Agent from the State of New-York, to this exhibition. They will be read, with interest.

London, May 6, 1851.

DEAR SIR:—Ere this reaches you

you will have seen the account of the opening of the Crystal Palace, which will answer as well as any description I can give. No pen, however, can do justice to the whole display. It has never, in all its parts, been before excelled, and probably never will be. The day was exceedingly fine, and the out-door display magnificent. Within, everything was in complete order when Her Majesty arrived, and the representatives of every nation and government, I believe, except Naples, were present, to mingle together their shouts of applause at the opening of an Exhibition of the Industry of all.

The show is visited daily by multitudes. I have not yet had time to look over all that has been arranged; but have seen enough to be satisfied that it exceeds all the expectations I had formed, although they were, as I thought, very highly raised. England has done what we expected—presented her best things in absolute profusion. Agricultural implements and machinery, her engines and machinery for her factories, exceed in finish any thing I ever before saw.—Whole establishments have been almost, if not quite literally brought here.

In the hasty examination of the implements, I do not discover any new ones that we have not heard of—except an iron horse-rake, much like the spring-tooth rake of our country, which is a far more available implement than any heretofore made. I shall, as soon as practicable, begin with the different exhibitors, and go through their articles,—carefully noting each, and, as far as in my power, ascertain its qualities, price, &c., &c.

In the manufacturing department—woolen, cotton, linen, and silk—there is a wonderful display—not only in the English, but in the foreign departments. France has showed herself alive to this great exhibition, and if John Bull beats her, he must have the credit of doing what no other nation can approximate to. The French exhibition is not nearly arranged; but every day opens some new and wonderful display of fine goods, statuary, &c., which attracts multitudes, who stand and gaze and are lost in admiration at the ingenuity and skill of these Frenchmen. Austria, Prussia, Switzerland, Belgium, &c., have many very fine things. The United States, I am sorry to say, have not fulfilled our expectations, nor justified John Bull's fears, in the exhibition they have made. Not half the space allotted us has been occupied; and France and England are filling up the vacancies. We have, I think it is admitted generally, the finest piece of sculpture—"The Greek Slave," by POWERS. A dying Indian, made of American marble, by a young artist, his first effort—(P. STEPHENSON, Boston,) No. 467 on the Catalogue—is a masterly piece of work, much admired, and the London Times, which says all the unkind things necessary of the United States' show, admits it has merit. The best foreign artists here say it has great merit; and, so far as I have heard, they admit that the Greek Slave is the best statue exhibited

Mr. RIDDLE, the U. S. Commissioner, has selected HORACE GREELEY, Esq., as Chairman of the American Judges. I will give the names of all the American Judges as soon as they are announced by the British Commissioners.

I saw Col. REID, Chairman of the British Commissioners, to-day, who informed me that *any articles* from our country would be received at any time, and that he was very desirous that our country should be better represented: as having traveled there, he knew that the Exhibition did not fairly represent us, or our progress in agriculture, manufactures, &c. I wish the collection of wheat in the straw in the Agricultural Societies' Rooms could be sent here in good condition; and also a sample of our hay and manure forks, shovels, spades, &c., of which there are a few, but very indifferent indeed. A show, too, of our manufactured goods should be made. The shawls from West Troy, broadcloths, &c., ought to be here.

London, May 16, 1851.

On Wednesday I attended the weekly meeting of the Royal Agricultural Society, and heard two very interesting lectures from Prof. Way and Prof. Simonds, on the use of salt as a manure and for animals. Professor Way took the first part and gave a brief history of the facts recorded as to salt, and of its chemical qualities, and the manner of its action, which he said was an indirect one, not direct. Professor Simonds took the latter part of the subject, which he very clearly illustrated, showing the advantages of salt for the use of animals, and concluding as a general rule, it would be well to give free access to it rather than give it at intervals. As a lecturer, Prof. S. is much the most interesting—as he is a ready speaker and explains with great clearness his subject. Prof. Way is rather hesitating in his manner, but clear in the illustration of his subject, and very careful in stating his propositions and conclusions.

The Judges on the part of the United States were appointed Monday, and several of the committees, or jurors as they are called, are at work daily. I am on the committee on agricultural implements; but the English Judges had a trial of their implements, and one or two Belgian ones before the exhibition opened—and I am informed have made up their awards. Mr. Pusey is chairman. I informed him that we should insist upon having our implements tried as soon as we had persons on the ground to attend them. He has not called his committee together yet, but informed me that he was in favor of testing our implements; but I should fear that the decisions already made might be embarrassing.

The gentlemen selected as the English and foreign jurors, are generally very intelligent, and so far as I have been made acquainted with them, are disposed to do even justice to all. The English have a decided advantage, as their jurors have been selected from those best informed on the subjects submitted to them, while the other nations have to depend upon

gentlemen present, who may not, in all cases be best qualified for the examination of the subjects on which they are called to judge. It is expected that it will take the jurors from four to six weeks to complete their examinations, though I hope it may be finished sooner. Every facility, so far as I can discover, is most readily afforded by the British Commissioners, to have a fair hearing on every matter submitted to them.

I went to-day, with one of the jury on articles used for food, through all the grain divisions, and we came to the conclusion that the best samples of wheat and corn exhibited, were in the United States' exhibition. None, except the wheat from Australia, was equal to some of our samples. The Australian wheat, the same kind precisely that we have at the Rooms, and which Mr. Thompson of Long Island raises, was very fine indeed.

The Canadian wheat was very good in some instances, though most of it was of mixed varieties, which detracts from its appearance. A sample grown in England, called the Prolific, I believe, is marked as weighing 67½ lbs. per bushel, and was very fine. The yield of Mr. Hotchkiss, of Lewistown, in our state, 63½ bushels per acre, exceeds in quantity any one exhibition, and the sample, as you know, is a very fine one. Mr. Bell of Westchester county, has some very choice specimens of grain. A sample of White Spring-wheat excels any I have before seen, and his specimens of winter wheat, white-flint, Soules and Mediterranean, are remarkably good. In barley and oats I think the Scotch and English excel us. Their grain is much heavier than ours, and the malsters say that our barley does not malt as well as theirs.—How this is I do not know. Our samples of buckwheat are better than any other which I saw. I have not had an opportunity of examining very critically, the flour as yet; but I think some of ours is equal to any I ever saw, and such is the opinion of an intelligent Scotchman from Edinburgh, who has charge of a stand filled with the products of Scotland.

The Highland and Agricultural Society of Scotland have a very extensive show. I should judge that they had removed their whole museum here. They have wax preparations of potatoes, turnips, pease, &c., that are very life-like, and their exhibition of grain in the ear is very extensive, and is deserving, as it receives, much attention. Samples of forty day maize, ripened in England, are on exhibition and appear very well. The ears are not as long as ours, but the corn is perfectly ripened—the husks exhibited showing that it reached its full maturity. In grass seeds the exhibition is very extensive, and many of the samples are unusually excellent. Millet, rape, and other seeds are on exhibition. From the East-Indies, Australia, &c., there are large contributions of their products, some of which are worthy of especial notice, which doubtless they will receive.—I regret that we have not a more exten-

ded contribution in this department, as I am sure that we could have added largely to our exhibition, and have satisfied all, that we can raise of the first quality the best grains used for the sustenance of man and beast.

Last Monday the Smithfield market had the finest lot of cattle ever exhibited, except at the Christmast show, and nearly equal to that. It was a sight that a lover of good beef and mutton would go a long way to see. The Scotch were ahead of all. The more I see of the Galloways and West-Highlanders, the better am I convinced that there are no cattle in this country that compares with them for beef. The Short-horns, Devons and Herefords, are remarkably fine; all the cattle are better fattened than I have ever before seen in this market, or in any other.

I saw, a day or two since, at Sion House, and also at Kew, the "Victoria Regia," and it is a sight worth seeing, truly. The leaves of the plant at Sion House were, I should judge, nearly three feet in diameter, and I doubt not would, as represented in the plates we have seen, support a child four or five years old.—The water is kept in agitation by a small water-wheel on top of the water, supplied by a lead pipe, conducts the water to the tank. The plant has to be *cheated*, they say, by this operation, believing it is in its native waters, which are constantly agitated.

Sion House, one of the Duke of Northumberland's Seats, is near Brentford, famous for John Gilpin's race, and the old town clock looks as if John might run again, and with equal celerity. The house and grounds are thrown open to the public, and tickets are procured of the foreign ministers, or at book stores, which allow free access. There are about 300 acres connected with the gardens and parks. The paintings in the house are from the old masters, comprising portraits of Charles the First and his family, Charles the Second, the early Dukes of Northumberland, &c., and are, many of them, of rare excellence.—These paintings occupy the walls of three large rooms. The library is 120 feet long, facing the lawn and park, which extend to the Thames, and with a far reaching view beyond, over the country, studded with country-seats, &c. It is one of the finest views of the kind I have yet seen. The drawing room, dining room, and vestibule, are richly furnished, and everything that wealth can supply to a refined taste, seems here to find a place. The Duke visits here at this season three days in the week; the rest of time in town. He does not occupy it more than six weeks in the year, I am told—the rest of the time being spent in the town, or at his splendid estate in the interior of the kingdom.

The garden is filled with every variety of plant, flower, and shrub that can contribute to its beauty. His green-house of palms and tropical plants, is very rich in its collection and arrangement. He has a fine breed of cattle, and choice sheep, grazing on his pastures on the

Thames. His stock mostly short-horns, interspersed with Alderney or Jersey cows for milk. The sheep are South Downs and Leicesters.

Kew, a royal residence, is also thrown open to the public so far as the grounds and mansion are concerned. The Palm-house here is of glass, somewhat in the style of the Crystal Palace. Here almost every variety of these trees are to be found. The bread tree bearing its fruit—the India-rubber tree, &c., are here to be seen. This house, I understand, is warmed by twelve furnaces, and the tall chimney which conducts the smoke away, stands, I should think, from 40 to 60 rods distant. These grounds are handsomely laid out, and the green-houses are well filled. The "Victoria Regia" is not so large as at Sion House, but still outvies all our ideas of water lilies. Beds of Rhododendrons are scattered through the Kew grounds, which when in bloom, must produce a splendid effect. The museum of curiosities here, established by Sir W. J. Hooker, who was present when we visited it, is a very interesting collection.* We went to Richmond Hill, and I saw from the coffee-room of the Star and Garter, the splendid view which so captivates the English, and I doubt not every body else who sees it. The day was fine, and the country seldom seen to better advantage than when we were there.—*Albany Cultivator*.

How to make a Ditch.

MESSRS. EDITORS:—I will just say a word or two in earnest. I enquire of you, or some of your subscribers, the plan, if any has been discovered, to make a ditch stand that it cut through sandy land, as many are aware that we frequently strike sandy scales when draining low lands, bogs, swamps, &c., especially on Lynches creek. I have been watching for such a plan for a long time, but it appears that all those who seem to display so much talent on hill side ditching, have clay to experiment on.

I say again that the Farmer and Planter is the very thing it should be. It seems to bring every one in South Carolina, or all that will, and as as many as please from other states, into our Farmers' Club. All say and believe what they please. Some are as snappish upon the views of others, in writing, as I have seen men who were crossed in their notions at home, or in conversation about their farm; and I don't doubt but that it is all well enough. A hard hit at the right time and in the right way does good sometimes. It appears that every fellow has a word to pass at Broomsedge, because he says about what he pleases when reviewing or writing; I think he is about right nine times out of ten. I am sorry that he did not say enough to in-

duce Pry to use some more of his ammunition to convince us that burning woods will improve the land more than to let them grow rough. We have many Prys among us, believing strongly in the doctrine of burning. But some of us have noticed that lands lying rough many years before we were born produce, when cultivated, four times the crop that lands burnt every year do. I don't profess to say that Broomsedge has made a convert of me, for I have had my own notion about this matter long since, and would like if Pry is right, that he would discharge his grape shot with his artillery and mortars. If there is any argument to show that burning woods is the best practice, we would like to be a convert. But no more of this at this time.

We have some men that believe in the moon in planting potatoes as well as "Red Oak." Wetting the slips in water as you plant will make them come up all at a time, or much more regularly than to plant them dry. Never mind the moon. I have no doubt that Red Oak's idea is a good one. We can tend four times as many with the same labor. We are certain they will come through sandy land if not too wet, covered with the hoe as deep as you please, and if they will come covered with the plow, the idea is worth one million of dollars to South Carolina. For nothing in South Carolina will yield as much to the acre for provision as sweet potatoes, and nothing requires more labor than they do, tending them in the usual way. I think enough of the suggestion to try it at another planting season if I should live. Who would not tend twenty acres if he could with the same labor that now tends five.

A SUBSCRIBER.

Natural Grove, S. C., July, 1851,

OFTEN breaking up the surface keeps the soil in health.

Cultivation of Corn.

MESSRS. EDITORS:—Mr. Crawford tells us all that is necessary to raise a good crop of corn is to keep it well stirred—clear from all noxious growth—the earth pulverulent—the surface level and the roots un-cut.

Mr. Sylvester asks the question, "Will this mode do in all cases and under all circumstances? To this question I would answer there is no general rule without some exceptions.

He asks again, "Will it do to stir it often in dry weather?" Your answer to this question in your remark is worthy of a second reading, aye! a third.

"Will it do to keep the surface level in low damp bottoms?" On this subject I would pray for more practical information.

He says, "I think I have seen great injury done to corn and cotton by working it at the wrong time,"—meaning (we are left to infer) when the season is too wet or dry, and also by its being plowed too late.

"How long should corn and cotton be plowed to be advantageous to it, and whether the process of stirring should be continued when the ground is sufficiently pulverulant?"

It is upon these subjects, I would be pleased to hear more said. These are interesting questions both to the young and old farmer. Much judgment is required to be exercised in early and late, wet and dry plowing. I think we should be governed very much by circumstances, after reflecting on the condition of the soil, whether it is old or fresh. We should in the first place consider the seasons; in the second place the quality of the soil; thirdly we should consider the width of the rows; and fourthly the condition of the crop.

If the seasons suit, plow all late. If they do not suit, and you have a sandy soil with narrow rows, lay by early with surface plowing. If your soil is red and stiff with wide rows, plow late and not so close to the corn as to kill it by cutting the roots. I do not think the corn is furnished with a root that is not of use to it. If we could cultivate the whole crop without cutting a single fibril, so much the better. As a general rule, you can plow wide corn or cotton rows, or any thing else, late with more safety than you can narrow rows. In very dry seasons, in laying by the crop it is not a bad plan to plow only every other row. In order to avoid plowing my corn or cotton when the soil is too wet, I keep one or two days ahead, and run around while the crop is young. I often put all of my plows to running round while there is a good season in the soil. One day's plowing at the proper time is worth two after the land has become dry.

Yours, &c., W. D. A. D.
Laurens, S. C., July, 1851.

Sulphate of Lime and Manures.

For a considerable length of time the editor of the American Farmer, and a correspondent of that paper, have been engaged in an animated controversy upon the effects of plaster of Paris, mixed with guano and putrescent manures. The

editor devotes a very large part of his June number to show that the sulphuric acid of the plaster has a very happy effect in retaining the ammonia of these manures and in a form ready for the use of plants. The correspondent argues from his own observation, and the experience of many others within his knowledge, that sulphuric acid fixes the ammonia in a state insoluble and unsuited to the wants of the plant, and hence the application of gypsum to guano and putrescent manures must be a loss of the money and labor expended. All chemists and agriculturists concur in the importance of ammonia as a fertilizer, although they may not agree as to the manner of its operation or as to the substances which best prevent its escape. Some men, distinguished for their scientific attainments, are of opinion in point of economy and efficiency mould is entitled to the preference over all agents to retain the ammoniacal gasses. Others of equal reputation, and with equal confidence in the theory they maintain, press the claims of clay to the palm. Others still find nothing like charcoal. Others yet believe copperas is the most desirable whether for the field, the compost heap or the excrementitious deposit. And peat is not without its favorites and uncompromising supporters. Every one of these substances is unquestionably valuable or rather we should say invaluable to the agriculturist and deserving of his particular attention. But whether they are all capable of performing what is claimed for them under all circumstances and without conditions, perhaps is not quite so well settled—and possibly some scientific men have been in a slight degree at fault. The presence of moisture has been thought by some indispensable to the favorable action of gypsum upon guano and putrescent manures in retaining the ammonia, while others have over looked this point, or have been of a different opinion. The theory and practices of the late James M. Garnett involved the principles of the necessity of moisture.—Prof. Gray seems to have taken particular pains to impress the idea of using gypsum when not dry. Dr. Dana in a prize essay on manures, says:—

"This brings us to our fourth point, the best mode of preventing the flying off of the ammonia when this change has taken place. Much has been said about tanks and vats and urine pits, and many plans devised for preventing the escape of volatile ammonia. But when once the action of ammonia upon mould is understood, as we have already pointed it out, I am persuaded, reader, that these tanks and vats and urine carts will appear to you not only expensive and cumbersome, but useless. Your first point is, to save your ammonia, your second is, never to use urine in its caustic or burning state. If you do, you will as assuredly burn your crop, as the puddle formed by a cow burns the grass upon which she empties her watering pot. Here the urine, forming caustic ammonia, acts as would caustic potash, or a lump of stone lime, left to slack upon the grass. You want to change this burning or caustic ammonia into mild ammonia, or to combine it with some substance which has not only that

effect, but also keeps it from flying away. Unless you understand, then, the principles of these actions, and apply them too, your labor is all vanity, when you attempt to save your own or your cattle's urine.

These principles are in number, two. First, the principal which changes caustic into mild ammonia, is carbonic acid, derived from air or decomposing mould. Second, the principles which render ammonia less volatile, or wholly fixed, are certain acids formed in mould, as sour mould, or certain salts which give up their acid to the ammonia. Plaster of Paris does this, changing its lime for ammonia. Now let us go into the reason of this a little, and see if we can understand it. Very slowly, and supposing moisture present, the oil of vitriol of the plaster quits its lime, and unites to the ammonia, and so changes a volatile into a fixed salt. Now this change which has of late been much insisted on, and the practice recommended, of strewing the stable and barn cellars, and even the privies, with plaster, to save the ammonia, which escapes in these places. But it is doubtful whether the saving is as great as is generally supposed, for the ammonia arising from the urine is caustic, it flies off as caustic ammonia, that has no effect upon the plaster. To produce this mutual effect of ammonia and plaster, the caustic ammonia must previously have been made mild. However, this plan is applicable only on a small scale. Copperas, alum, common salt, potashes, and wood ashes all act to fix the volatile ammonia and have all been recommended for this purpose. But it is easily seen, that, in employing some of these substances, is to buy ammonia almost at apothecaries' price. These practices will be followed, therefore, only by those who place the crop and its value on ammonia. This is a limited and narrow view. The true and farmer-like, as well as the most scientific and natural mode of preserving the ammonia of urine, is to fill your yards and barn cellars with plenty of mould; by which I mean truly decayed and decaying vegetable matter, as well as loam. There is no mode more effectual, no mode more economical. Consider now for a moment, how mould formed and forming, and ammonia act. Have I not said, again and again, that ammonia hastens decay? that it makes mould more easily dissolved? and cooks the food of plants? That action having occurred during its progress, acids were formed. The ammonia unites with them, loses its burning properties, and becomes fixed.—The acids having been satisfied, the ammonia is actually imbibed and retained by mould.

It does not drink it in like a sponge, but the mould forms a peculiar chemical compound with ammonia. This peculiar compound, while it does not render the mould an easily dissolved matter, yet holds ammonia by so feeble a force, that it easily yields to the power of the growing plants. It gives up the stored ammonia at the place where, and the time when, it is most wanted."

The following continuation of the same subject is from the Albany Cultivator.

"It has been recommended to mix plaster with animal or putrescent manures, for the purpose of preventing the waste of fertilizing substances. The theory is, that the sulphuric acid of the plaster unites with the ammonia of the manure, forming sulphate of ammonia—that the ammonia thus combined or fixed, is preserved from loss, and when applied to the soil, being soluble, is taken up as food to crops.

This mode of using plaster, according to the testimony of those who have adopted it, has been decidedly beneficial in many cases. Of late, however, we have heard of some cases where the use of plaster appeared to produce a very different effect from that above described. A writer in the *Richmond Whig*, with the signature of "T. S. P." (supposed to be THOS. S. PLEASANTS, Esq., of Petersburg, Va.,) states that he has recently taken some pains to "investigate the matter," and thinks he has obtained "a number of important facts." His investigations related chiefly to mixing plaster with guano. He says—

"The result was, that in nearly every case, the action of guano was impaired by the addition of plaster, very much in proportion to the quantity of plaster employed. When mixed together in anything like equal proportions, the effect of the guano was entirely destroyed. In one or two instances, when plaster had been liberally used with stable manure, the effect was equally injurious."

Now if these results have been produced—results so different from those generally attributed to the use of plaster—it becomes important to understand the causes which have produced them. And to illustrate the subject, it will be interesting and useful to refer to some experiments reported by Mr. PUSEY,* in the *Journal of the Royal Ag. Soc.* for 1850. The following relates to some of his trials with gypsum:

"Ammonia was escaping largely from the litter of a farm-yard, as could be perceived common test of holding near the surface, paper dipped in spirits of salt, which turn the invisible fugitive into a white opaque steam of sal-ammonia. A whole bushel of gypsum was strewed over a few square feet of the yard. The test showed that the escape of ammonia was uncured."

Mr. Pusey states also that he had used plaster in his stables, but they were not "sweetened." He thinks Boussingault has thrown light on this subject.

"He says that gypsum in solution, as in a laboratory experiment, does act as desired but that in a state of *moist powder*, the gypsum is indifferent towards ammonia; nay more, that in that state the law of affinity is reversed, and that carbonate of lime, chalk, decomposes sulphate of ammonia, actually *unfixes* it. To explain this contradiction he quotes Berthollet and the following singular law. If two saline solutions, containing between them an insoluble salt, be mixed—

that insoluble salt will be formed: but if two salts, containing between them a volatile salt, be mixed in a moist pulverulent state, the volatile salt will be produced. Thus sulphate of lime and carbonate of ammonia in *solution*, produce carbonate of lime insoluble, leaving sulphate of ammonia, which is soluble though not volatile. But carbonate of lime mixed with sulphate of ammonia, in a state of *moist powder*, acting by an opposite interchange, produces carbonate of ammonia, a volatile salt, and sulphate of lime.

* * * * *

Mr. Pusey concludes, therefore, that gypsum must be in a state of solution to fix ammonia, and to bring it into solution, requires, he states, 500 times its own weight of water. It is stated by chemists, however, that gypsum may be dissolved in a much less amount of water, when mixed with chloride of ammonia; and the solubility of gypsum when mixed with manure, is probably increased by the ammonia which the manures contain. If this reasoning is correct, it seems to explain the causes of failure above alluded to, in regard to the mixture of gypsum with guano. From the want of sufficient moisture, the carbon of the guano united with the lime of the gypsum, and the sulphuric acid not uniting with the ammonia of the guano, the ammonia became volatile and escaped.

The ammonia in guano has a great tendency to become volatile, when the guano is in a dry state, and hence, when it has been sown on the surface of the soil during very dry weather, there have been frequent complaints of its inefficiency.—The escape of ammonia from stable or yard manures also takes place chiefly when the manure is dry. It is greatest when the manure heats or burns—the carbon, with which the ammonia set free. This loss might be greatly increased by mixing with the manures, while in a dry state, any substance which should render the ammonia more volatile.

*Progress or Agricultural knowledge during the last eight years. By Ph. Pusey, M. P.

Green Barley a Substitute for Indian Corn.

MESSRS. EDITORS:—After the formidable drought of 1845, the following letter appeared in one of our southern papers. It appeared to me so interesting that I filed it away. The occurrence of the present drought induced me to make search for it, and having found it, I beg that it may be republished. It will, I think, at this moment commend itself to the attention of many of your readers.

"THE OLD FARMER."

"Having noticed in the May No. of the Cultivator, an inquiry from one of your South Carolina correspondents in regard to barley, and not having noticed in any of the succeeding numbers a response to that inquiry, I hope you will consider it in good place, as the season for sowing is

fast approaching, to suggest a few particulars, the result of experience and observation, touching the cultivation and use of this important and much neglected grain. I say important, because it is the deliberate opinion of the writer that there is no small grain of more importance to the farmer, or that will make so profitable a yield to the same quantity of ground. That it is neglected needs no demonstration, as perhaps there is not one dozen farmers in every fifty in the south who make any sort of advantageous and successful use of this almost perfect substitute for Indian corn.

Having been a peculiar subject of the unprecedented drought of 1845, which for a time hung like an incubus upon the energy and industry of the agriculturists, paralyzing, in some sections, his best directed efforts, I immediately set about taxing my managing and economical powers, to see if anything could be done to make up for a deficiency of corn, where not more than one fifth of a crop was realized. Among the most successful of these efforts was that made on the cultivation of barley.

After hauling a considerable quantity of stable manure, ashes, rotten straw, &c., upon a little more than one acre of thin land, sufficient, I would say, not to be more particular, to give the entire surface a tolerably good coat—the lot was well broken up, having previously spread the manure as regularly over the surface as conveniently be done. The barley was then sown, about a bushel and a half to the acre, and well plowed in. This was about the 10th of October. The whole was then turned loose to the seasons until some time in February, having kept fat during this time a large gang of pigs, without a grain of corn. The winter being unusually severe, thinned the stand very much, perhaps one-sixth the quantity which stood upon the lot having perished by cold.

At the above specified time, February, my mules and horses were growing quite thin under hard service upon twenty-four ears of corn, cut oats, fodder, straw, &c., per day, in sufficient quantity. A resort was now made to the green barley, it having grown sufficiently high to grasp in the hand and cut with a reaping-hook.—It was soon ascertained that was preferred by the stock to all other kinds, corn not excepted. A reduction was therefore made in the quantity of corn, from twenty-four ears to only five, to each horse or mule at night, and the other food considerably lessened. Under this latter course of feeding, my mules and horses improved and did better than upon the original plan above stated.

This small lot continued an abundant supply for six head of working animals for nearly two months, filling three large troughs each day at noon and night during the whole time. The result was a neat saving of at least fifty bushels of corn, and a considerable amount of oats, fodder, &c. In addition to all this, there was a great improvement in the appearance and health of the stock.

These animals were kept hard at work

during the whole time they were fed on this green food, notwithstanding which fact, did not sweat or scour more than ordinarily. This is a remarkable fact, not understood by the writer, as all other kinds of green food fed to the same extent to working animals, will produce these effects more or less. These facts have suggested the belief, that green barley is *sui generis*, possessing peculiarly fibrous, esculent and nutritious qualities not contained in any other species of green food.

Green wheat and oats were also used, of which the former is best, but neither can be fed to working animals to any great time without the ordinary quantity of corn and fodder at the same time, as they will weaken the animal by sweating and scouring. I have also been informed that green rye will not answer alone for working animals, it not being sufficiently nutritious to sustain them during hard labor, and is liable to weaken by sweating and purging.

It is believed, from the writers experience and observation, (and this opinion has been abundantly confirmed by some of the best farmers in this portion of Georgia,) that green barley in the spring of the year is the best food for horses known in this country, when combined with a small quantity of corn and fodder or cut oats. Horses kept stabled and well attended to otherwise, will fatten faster on an abundance of green barley, a little meal and cut oats, than upon any other combination of food known in this country. This is a matter of experience alone, independent of chemical analysis. Whether the elementary principles which exist in fat are superabundant in green barley, the writer has had no means of determining, not being prepared to analyze the article.

The rule to be observed in feeding working animals, or those to be fattened, is to keep them well salted, give a little dry food, and then give them as much barley as they can consume, which is no small quantity, as they are exceedingly fond of it, preferring it all other kinds of food.

Green barley is also an excellent food for milch cows, sheep and hogs, fattening the latter almost equal to corn. There is very little doubt that a luxuriant pasturage of barley will keep hogs in better health and order than all the corn that is commonly spared by farmers for hog feeding. As barley is of a very exuberant growth, small fields from five to ten acres of it could be cultivated with but little expense for this purpose, and thereby save the trouble and expense of feeding hogs on corn during the winter and spring. In addition to all this, after the hogs have grazed all winter and spring, up to the first of April, they may then be taken off and the barley will seed, and make a fine yield if the ground is well manured. After saving a sufficiency for seed the hogs may again be turned on the pasture; and the writer affirms, without jest, that of all the grain that he has yet tried, barley seeded will make a poor hog curl his tail the soonest. But be careful to keep oth-

erstack from the pasture, after the barley begins to get dry, as the long beards will make the mouth sore, and also lodge in the throat and produce a bad cough. This does not occur with the hog, he masticate the dry heads with impunity, it may be understood then, that dry barley, before it is threshed out, does not answer for the horse or cow. But after the heads are well beaten and broken with the flail, so that the mouth and throat will not sustain injury by the beards, a bushel of barley is said to be superior to the same quantity of corn for any kind of stock.

To every farmer at the south who has not yet cultivated barley, I would say, fail not to make the following experiment the coming fall: Lay off a lot one acre and a fourth in extent, haul out a sufficient quantity of stable manure, ashes, rotten cotton seed, either or all combined, to cover the whole surface, so that there will be no mistake about its being rich, for if it is not rich it will not answer for barley. Then use a sub-soil plow, long coulter, or some long plow if neither of the first are at hand. After breaking up once or twice thoroughly when the ground is in good order, sow from a bushels of barley, as regularly as possible, and plow or harrow in, and without a remarkable accident, the writer vouches, that there will be no acre on the farm that will make so profitable a yield.

Nothing larger than small pigs should be permitted to run on the lot, as treading will prevent the luxuriant growth of barley. As soon after Christmas as it gets high enough to cut with a reaping hook or mowing scythe, it is ready to commence upon, and by the time you have cut over your lot it is ready to cut over again, and so on for several times. After it gets high it may be cut with the cradle. It should be cut regularly each time, as any that may be left will go to seed, and probably be gathered at the next cutting and injure the horses' mouths.—One-fifth of the lot should be reserved without cutting for seed.

If farmers who have from ten to twenty work animals would prepare and sow three lots of this sort, successively on the first of September, October and November, they could have a continued supply of the best and healthiest food for their stock throughout the spring. But let me repeat to any farmer who may chance to come short in corn, that barley cultivated successfully is a perfect substitute for this staff of life, so far as specified in the preceding remarks.

I forgot to mention at the proper place that cow-penning is an excellent way of preparing those lots, if thoroughly done.

Respectfully, A. C. ROGERS.
Woodlawn, Crawford Co., Ga., Aug. 1 1846.

MESSRS. EDITORS:—As the time at which farmers are generally troubled with diseases among their hogs, is approaching, I may give a remedy for blind staggers in hogs, which, if not new to every body, may be a benefit to some:

REMEDY—Take two table spoon fulls of spir-

its of turpentine, mix it well with half-pint of corn meal and give it to the hog; then cut the ear so as to bleed a little. This is a certain cure in all cases. Try it.

Here is another that may be of benefit to the housekeeper:

TO DESTROY BED BUGS—Take of mercury or quicksilver, and mix with the white of an egg, and apply it on the places where they frequent. Ten cents worth of quicksilver is sufficient for a large family one year. Try it and see.

TO REMOVE GREASE, OIL, VARNISH, &c., from velvet and wollen garments, wet a piece of sponge with spirits of soap and apply it briskly; the spots will instantly disappear. Then dip the sponge in warm water and wash thoroughly.
Greenville, S. C.] AN OBSERVER.

Cotton Culture.

MESSRS. EDITORS:—At your request I will give you hastily my notions, which I am conscious are imperfect, upon the production of cotton. The modes of preparation and cultivation of the cotton plant, are numerous and very discordant, so much so, as to perplex the inexperienced, and leave him dubious as to the correctness of any. One will prefer an early preparation of the land, another a fresh mould; one, land that is as hard as he can get it, another that which is as soft as an ash heap; one a high ridge, another a level surface; one an early, another a late planting; one a deep, another a shallow culture; one an early, another a late thinning. One crowds his stalks, another gives much distance. One earths, another keeps the surface level. One practises an early, another a late culture. One tops, another does not. One makes a slow and clean, another a rapid and dirty gathering of the crop. One dries his cotton in the shade, another in the sun. Thus there is a great discordance of opinion through all the ramifications of its production, from beginning to end. Many of these systems are preposterous and should have advocates no where.

In adopting a system of culture for any plant, reason should be consulted, and the peculiar nature, and habitude of the plant well studied, and that system adopted which is most in accordance with reason, nature and the demands of the plant.

To delineate what precise mode of operations would prove most efficacious in every emergency, would be impossible. The emergency of the case must be left to the critical judgment of the manager, and be governed by circumstances. I think, however, there are general rules, by which the planter should be regulated in its production. Even these, though, will often seem to fall far short of their end—the plant being so precarious—incident to so many maladies—which will frequently render abortive the best concocted schemes, and frustrate the most sanguine hopes of the planter.

The soil that seems most favorable to the growth of cotton, is one that is strongly inclined to sand, or one in which sand predominates, with a porous subsoil and an aspect gently sloped to the south. Such soil affording a quick and ready ingress of the solar and atmospheric

influences, and the porous subsoil permits the speedy permeation of the surplus water that settles from the surface.

With land that is inclined to be cold and wet, the great desideratum should be to change its relation with respect to moisture—hence the necessity and origin of the ridge, without which cotton cannot be successfully grown on the warmest textures, or the most favorable aspects, and he who would sow his seed on a level surface has not learned the first principles of its culture.

My mode of procedure with this character of soil, is to throw it up into as high ridges as possible by means of the plough (I use the Jack).—Much care should be taken in throwing the first two furrows as closely together as possible, for they give height to the ridge, as they form the apex of the ridge when finished. Having thrown it into as high ridges as possible, it will be much benefited by being slightly drawn up with the hoe, barely enough to fill up the interstices of the furrows and give it a roof-like shape, which causes it to eject the rains, whereby it is rendered drier and warmer, the salutary effects of which is known to every Planter during a wet spring. Another benefit of a high ridge is, that a greater surface of earth is exposed to the ameliorating effects of sun and air. In making the ridge, I leave a balk for the cotton to start on, on all lands except very hard, stiff or trodden soils, these I break throughout previous to ridging. When practicable, on this kind of land, the rows should be run with the slope of the field so as to conduct the surplus water away—there should be a good channel furrow. On land planted in this way I dibble in planting, and only on this land. I do it here in order to preserve as much as possible the height of the ridge. My objections to dibbling are, that it is tedious and expensive, and the result with me is frequently a bad stand. When the cotton has to be thinned, it requires treble the time to do it, the seed all having come up in a bunch, it must necessarily be done with the hand which is tedious and laborious. This practice is much pursued on large cotton plantations and among good planters, but I expect it is resorted to *ex necessitate* for the want of a sufficient horse power, and not through choice. In cultivating this kind of land the ridge should be preserved as much as possible, which is effected by scraping the sides and running one furrow in the middle, which kills all the grass that is left from scraping, and at the same time reverts to the beds the earth that has been hauled down in scraping.

With soils that are too open and porous the great desideratum should be to change its relation with respect to texture, which is effected by early preparation—permitting the rain to settle and render it compact. I neither prefer a loose or a hard tilth of soil, but a firm compact one. In planting this kind of land, if the earth should be compressed on the seed, it would prove of considerable benefit, by causing the loose particles of earth to unite into a mass, which would have the effect to give it more tenacity and cohesion, and make it retentive of moisture (for

moisture on open porous soils soon escapes, and often retards the germination of the seed) and cause a quick germination—it would also permit the plant to affix its roots more readily to the earth, and make it less liable to be affected by cold.

On all other kinds of soil I ridge up as high as I can with the Jack and sweep—I throw four furrows together with the Jack and throw out the balk with one furrow with a large sweep.—On tight lands it will be found necessary in order to break through easily, and throw up well the balk, to use two horses. This mode of ridging is very expeditious and makes beautiful beds.—The sweep leaves a good channel furrow, and gives an equal division of earth to the beds.

In manuring I put, when I can, all my long or unrotted manure on the stiffer soils, and place it as deep as possible, so that the plant may affix its roots firmly to the earth before it comes in contact with this rough material, for if the roots should strike it at the start they would be almost certain to die in its attempt to take hold. Manure that is well rotted I do not place deep, and frequently, if the land has been in cotton the year previous and is loose, I scatter the manure on top of the ground in the middle of the old row. I have been more successful with stable manure for cotton, than any other. I believe, though, cotton seed is the best manure for cotton, for it contains the peculiar elements that enter into the composition of the plant. I attribute my not being successful with them to droughts. I think they are better when put in very early and deep, and on stiff land. The hauling, scattering, and covering manure should all go on simultaneously.

I have adopted the uniform distance of three feet for my rows on all lands rich or poor. On very thin lands I would put them closer, but closer than three feet would prove an inconvenience in working. On rich lands, and these are not unfrequently cold, where the stand is apt to be bad, there is a great advantage in close rows, for the greater number of rows compensate for the scarcity of stalks, and should there be a good stand, there will be no disadvantage, as the distance between the stalks can be adapted to the fertility of the soil.

As soon as the soil is sufficiently warmed by the vernal heat, the seed should be put in—the time of planting should depend on the season—I should say from 5th to 12th of April, for this latitude. I open my beds with a small gopher, which makes a straight, narrow, and shallow furrow. If early and some apprehension of frost, I put about two and-a-half to three bushels seed per acre—if late without fear of frost, I put barely enough to unite them. If the land is in good order and not cloddy or very rough, I cover with a board, attached to the foot of the plow, in the usual way—if the land is rough or cloddy, I cover with iron rakes. No pains should be spared in setting the crop in properly.

As soon as the cotton makes its appearance, if the ground is clean and in order, I go over it first with the hoes leaving from two to four stalks in a place. If the land is grassy or hard, I run

around with the sweep before hoeing. The second time going over is the most important working the crop receives, and will require the constant attention of the manager. At this working I reduce it to one stalk, and never more unless there should be one miss, then two and never more than two. On lands that will make 800 pounds, I leave the stalks about ten inches asunder. On land making 800 or 1000 about fifteen inches, and on the richest lands, making 1300 or 1800, I think thirty or thirty-six inches not too wide with three feet rows. My plan is to fill the land as nearly as possible. I think there should be ample room for the full expansion of the plant in every direction, and by being at a good distance asunder the sun will have freer access to it. The system of crowding, is to me unphilosophical and at variance with the habit of the plant. It is certainly a sun plant, and if it is crowded it prevents the access of the sun—it makes from expansion, and if crowded it will only branch on two sides. The sides opposite each other will be branchless, the stalk will run up tall and slender with little stamina—the same thing can be observed in a dense arborescence, here it will be seen that the trees have grown tall with few branches and little stamina—its cultivation must be more difficult—the bolls are smaller and consequently more tedious to pick—the staple is not so good the sun having little access to it, and it is more subject to rot.

I get the crop to a stand as early as possible—it should be to a stand by the last of May. The objection to early thinning—that it will die—is, I think, an error. I would rather risk one stalk than a bunch, for when in bunches, they are apt to put out and expose the roots, and the plant dies. The ridge should be well kept up whilst the spring is cold and wet. In hoeing I do not earth, but put back about as much as is taken away in cleaning—the surface is kept level immediately around the plant. In plowing I rarely ever put more than two furrows. I use the sweep from beginning to end, and would not exchange it for any plow I have ever seen. My sweeps are sixteen and eighteen inches wide, with considerable point. If however I should unfortunately get deep in the grass and the weather is rainy the sweeps are of no avail—the Jacks are then used. This should never be the case with cotton if possible—the whole strength of the land should be given to the crop, and every possible means should be used to hasten its maturity before frost. I work my cotton as often as possible from the time it comes up to near its opening—there is no danger of its being worked too much. I believe in a late culture—it causes it to retain its forms and pushes forward the young bolls. At the last hoeing I draw up all the low damp places—it is equally as important to have a good ridge during a wet fall as a wet spring. I commence picking as soon as twenty-five or thirty pounds can be gleaned, and make great haste to have out as much as possible before cold weather. Putting up prizes for racing will pay well, it often gives them a knack at it which probably they would never acquire without it. I am not particular

about a little trash, for if there is a heavy crop to gather there will be no time to be very nice, and until cotton buyers become better judges it is useless. When there is sufficient room, I dry my cotton in the shade, if not in the sun, and when thoroughly dry I throw all into a bulk.

This has been hastily written, Messrs. Editors, and I hope you will excuse its many imperfections.

J. W. CRAWFORD.

Cold Springs, July 29th.

Drought.

We are suffering from drought just now scarcely inferior to the one of '45. The up-land corn will be almost an entire failure, while the cotton promises well.

While there is a moral aspect to this subject which all men ought to consider, there are natural causes which farmers ought to look into and apply the proper remedy.

There is no difficulty in fixing the cause of our dry summers. No fact in Natural Philosophy is better established than that drought is consequent upon the removal of timber. It would be hoping against hope to expect frequent rains where the bare ground is exposed to a scorching sun. As much rain may fall throughout the year as formerly, but it cannot fall in the summer where there is so much cleared land. Every one knows that summer rains are not as frequent now as they were twenty or even ten years ago.

It is high time the farmers were looking this thing fully in the face, and preparing themselves to meet what we know will happen in the natural course of things. The remedy is not to sell out and move to the west, the dry weather will follow you there, as it is every year increasing in the south western states.—The only permanent remedy is a different system of cultivation. Deep plowing, connected with judicious manuring, and more thorough tillage, and less of the eternal cotton, are the objects to be sought. Moisture is essential to the growth of plants, which they derive from two sources, the atmosphere and the ground; the leaves absorb it from the air, and the roots drink it up from the earth. It is with the ground the farmer has to deal, he can exercise no control over the atmosphere. In dry weather the roots strike deeper into the ground in search of that moisture which cannot be had near the surface. The root of an onion will go eighteen inches, of wheat four feet, of corn five feet. The fibrous roots so attenuated that they cannot be seen by the naked eye, will extend their little snake-like mouths to these great depths where the soil is properly prepared. Every man who works corn ought to look at the end of these roots through a microscope. One glance would satisfy him of the necessity of a deep loose soil to grow a healthy stalk of corn. He would see every root to be a tube, and is so constituted that it receives the sustenance of the plant only through its little mouth—none from the side, and this accounts for the thousands which are connected with one stalk. Deep ploughing might per-

haps not be essential if the atmosphere was always surcharged with moisture, but that is not the case, and will not be the case, so the soil must be deepened and loosened to let the roots perform their part of the work. To lean on the fence and look at the clouds will not help the matter, for there are three months in the year, June, July, and August, that will be dry more or less in this open country of ours. We have seen large fields of corn which would not yield a bushel to the acre, if the force thus employed had been concentrated on the tenth of the space where the soil was properly manured and loosened, how different would have been the result. A prominent citizen of our district is so enthusiastic on this subject that he says—rank heresy to most farmers—he can make corn without rain. The rich green stalks that cover his fields, and which have had no rain of any consequence for nearly three months, go far to sustain his assertion.

After all that can be said on a matter plain as the sunshine, we expect that the present suicidal policy will continue to be pursued year after year. The plentiful rains of the winter and spring will induce the belief that they will be continued through the summer, but they will be deceived about nine years out of every ten.—*Erskine Miscellany.*

The Catalpa Tree.

During the past three years, the leaves of the Catalpa Tree, (*Catalpa Cordifolia*), in this district have been almost entirely devoured by large caterpillars—and in some places, twice or thrice in one season. The consequence has been, that many persons cut down all those beautiful shade-trees found in the vicinity of their dwellings. About one month since, (the middle of June,) I discovered thousands of Caterpillars upon my Catalpas, which were devouring their large leaves so fast that I was satisfied the branches would be left entirely bare in the course of another week or ten days, unless some remedy was immediately applied. I adopted the following, which proved more efficacious than I anticipated:

With an inch auger I bored three holes about one-third through the body of each tree—on opposite sides, and each one higher than the other. Into the bottom of the holes I put, through a common tin tunnel, a teaspoonful of the flour of sulphur, then stopped the holes with a wooden pin. In less than twenty-four hours, hundreds of caterpillars had fallen, or were crawling down the trees, and after three days not one has been seen.

This is what I call physicing the leaves and branches of the trees through the medium of their sap. If you suppose the result of my experiment will be of any value to your numerous readers, it is at your service; and if you think otherwise let it go the way of many others communications you no doubt receive. It may be well to remark, however, that the remedy referred to is not a discovery of mine, having seen it successfully applied

thirty or forty years since to destroy insects of various kinds upon fruit trees.—*Greenville Mountaineer.*

Birds.

I have been instructed by the example of the late Gov. John Cotton Smith, of Sharon, Conn., in providing accommodations for birds to build their nests in his garden, by fastening up boxes on poles fixed in the ground in various positions. The robin, wren, bluebird, and phebe, seek places sheltered from rains and storms for their young, and may be allured to the little houses constructed properly for their use. And they may be allured to these resorts by gentle manners and kind treatment, and become confiding and familiar. They consume incalculable numbers of various insects, that would otherwise prey upon fruits and vegetables, especially when rearing their young. It has surprised me to see what a multitude of these "creeping things" a single chipping bird brought to her nestlings in the woodbine fronting a piazza by my door, while her gaping chicks were under her nursing care, till duly fledged and ready to try their own little wings and learn to provide for themselves.

Before sunrise the robins are wont to run over my garden and pick up the grubs and worms that have not returned to their concealment in the earth, after their nocturnal depredations; and with the industry of various birds, the firebird, oreole, the light colored yellow-bird and others, I have been greatly interested, as I have seen them inspecting the blossoms of fruit trees and gathering insects from branch to branch. To their songs and beauty, so charming to the eye and ear, they add the benefit of a service which human skill cannot achieve.

There is a branch of education sadly neglected by many parents; that of kindness and gentleness to innocent animals. The noxious and mischievous we may rationally destroy, in self-defence, but what besides savage propensities can induce the habit of youth so prevalent, of stoning and shooting the birds that so winningly court our friendship? Advertisements from country boarding-houses, I have read, holding out inducements to city visitors, from their favorable situation, to test their ability in warbling upon the warblers of the forest.—Stringent laws, strictly enforced, should stop this cruelty, crime and mischief, so fiend-like in its nature, so destructive to the moral sensibilities of the heart.

Our best protectors will be destroyed yearly, by thousands. What though the robin loves our cherries as well as we; forbid him not to share our own common Father's bounty, unless you have ingenuity to elevate from the top of your trees some object to deter his approach. Even the carrion crow is a useful fowl, a common scavenger, a diligent destroyer of grasshoppers and crickets, and farmers need not destroy him, when so many innocent contrivances will prevent him from visiting his corn fields.

Again I say—"Be kind to the birds."

Tame them by showing them friendship. Wrens will destroy the millers that murder bees, and therefore, just make them the houses. A small oyster keg with a two inch hole for entrance, and fastened upon a four foot stake, with a projecting bush for porch, has suited a pair of them in my garden right well, this spring. A word to the wise suffices.—*New England Farmer*.

How to Toast well.

THE different operations of cooking are so common and so often performed by persons who make no pretensions to a medium amount of science or learning, that a notion is abroad that scientific principles have no relation to them, but that the whole business of cooking is a mere art, of which it is only necessary to know the routine. That cooking may be done, and very good cooking too, in this way, is very true; but it is none the less a fact that the most important scientific principles are at the bottom of every well cooked dinner; and that the cook is a practical chemist, whether she knows it or not. For instance, in the small matter of toasting a piece of bread there is as much skill required as to manage a twenty-horse steam engine, though failure in the business might not be quite as disastrous. But probably not one cook in ten thousand ever thought of the matter in that light, as involving any science at all. We have just stumbled upon an article of some length on this subject written by we know not whom, but which will illustrate all we have said above.

"In toasting bread we wish to get out the water that remains, and which makes the bread cold, waxy, and heavy of digestion. Perhaps we shall be best understood if we first explain what makes bad toast of a piece of bread, or rather no toast at all, but merely a piece of bread with two burned surfaces, more wet and waxy in the heart than ever, and which not a particle of butter will enter, and if put by for an hour or two and allowed to cool, it will get as tough as possible. If the slice of bread is brought into close contact with a strong fire, the surface becomes covered with, or rather converted into charcoal, before the heat produces any effect on the interior of the slice.—This being done, the other side is turned and has its surface converted into charcoal in the same manner. The consequence will be that not a particle of butter will enter such a piece of bread, but will only remain upon its surface, and if vexed with additional fire, turns to a most rancid oil of the most unwholesome description. Charcoal, as every one knows, is a very bad conductor of heat, and, as such, is used between the cylinders and casings of steam engines—it is of no consequence whether the said charcoal be formed of wood, or of flour, or any other substance, for its qualities are in every case the same. Now when the surfaces of the slice of bread are over-charred in this manner, there is an end to all toasting, as no heat can be communicated to the interior, and not one drop can be eva-

porated or drawn away. In this state the slice of bread may be wholly burned to charcoal; but until it is altogether so burned, the unburned part will become more and more wet and unwholesome. Hence, if you would have a slice so toasted as to be pleasant to the palate, and wholesome and easily digested, never let one particle of the surface be charred.—Chestnut brown is even too far deep for a good toast; and the color of a fox it rather too deep. The nearer it can be kept to a straw color, the more delicious to the taste, and the more wholesome it will be. The method of obtaining this is very obvious. It consists in keeping the bread at the proper distance from the fire, and exposing it to a proper heat for a due length of time.

Butter in masses, whatever may be its quality, is too heavy for the stomach; though butter divided with sufficient minuteness and not suffered to pass into oil, makes a valuable addition to many kinds of food. The properly toasted bread absorbs the butter, but does not convert it to oil; and both butter and farina are in a very minute state of division, and one serving to expose the other to the free action of the gastric fluid in the stomach; and that this fluid shall be able to penetrate the whole mass of the food, and act upon it in small portions, is the grand secret of healthful digestion; so that when a slice of toast is rightly prepared, there is perhaps not a lighter article in the whole vocabulary of cookery. Unfermented brown bread, treated in this way, forms an excellent substitute for biscuits and is in some respects superior, as it may be eaten with impunity by those persons with whom biscuits may disagree.—*Prairie Farmer*.

TO MAKE BRANDY PEACHES.—First scald the peaches in ley, a small quantity at a time, and immediately after dip them in cold water and rub them dry with a coarse towel. Take half the weight of the peaches in sugar and make a syrup; scald them in it until you can pass a straw to the stone. Take them out and boil the syrup down to a semi-fluid state, and when cool pour it over them, and add brandy until they are entirely covered.

To make Sweet Pickles of Peaches.—First scald the peaches in ley; dip them in cold water and rub dry with a coarse towel. Stick a few cloves in each and place them in a jar. Mix one pint of sugar to one gallon of cold vinegar, pour it over them and add cinnamon, mace, and allspice to flavor.

To make Mango Pickles.—Take one gallon of whiskey to two of water; add half gallon of molasses and pour it over stuffed mangoes—Cover tightly, and you will have an excellent pickle.

S. T. S.

Pendleton, July, 1851.

Ticks on Cattle.

MESSRS. EDITORS:—Permit me through your columns to enquire of some of your numerous contributors, if any of them can give us a remedy, or suggest to us a preventive, for ticks on cattle;

they seem to me to breed on the animals, and form themselves on many parts of the body, like shingles on the roof of a house. They certainly are a new species, very unlike those that attach themselves to the grass by the wayside, in our mountain districts, as we have never known them to attack any but the black cattle; on these they form themselves so thick, and in such numbers as to kill, unless the animal is caught and they are carried off. If any remedy is known, it would be worth ten years subscription to many of the subscribers to your valuable paper, to make it public.

ELLIS.

Union C. H., S. C., July, 1851.

A friend present informs us that soft soap and sulphur, to be rubbed on the parts affected, is a remedy. He also states that he has been informed by a physician of our village, that a small quantity of mercurial ointment rubbed behind the ear, would remove them from every part of the animal. Our remedy has been sulphur, given internally, say a table spoonful to a cow, two or three times a week. It should be cautiously given to cows in calf, as we we are induced to believe it will cause abortion if freely given in time of gestation.—*Eos*.

Important Discovery.

At the last meeting of the Horticultural Society, London, various dried vegetables, such as peas, haricot beans, Brussel's sprouts, carrots, turnips, &c. were exhibited from Peyrusset, Moller and Co. of Paris. These were stated to have been dried by a process peculiar to M. Gaunal, the celebrated embalmer of animal substances. This process is understood briefly to consist in dividing the larger vegetables into pieces, and placing them in an apparatus into which dried air is driven, until they have parted with all their water, and become perfectly dry. In this condition they may be preserved for any length of time, and it is said that their flavor is not at all interfered with, inasmuch as nothing is taken from them except the water they contained, and that after they are cooked, they are just as good as when fresh gathered. If these facts, therefore, are borne out by experience, the discovery is a very important one, even as regards vegetables, more especially to ship-owners, for they can be furnished in this state, in quantity, and at a very cheap rate; but, in addition to vegetables, fruits, as apples, pears, apricots, &c. and even flowers, may be dried and preserved by the same process, and, owing to the rapidity with which the drying is conducted, the latter retain their natural colors almost as brightly as when first taken from the garden. In confirmation of this, several dried specimens were shown to the meeting; and it was stated that others would be present at the great Exhibition in Hyde Park, when it is hoped that additional information will be furnished on the subject.—*Exchange*.

Ashes and Lime for Plum Trees.

I have in my garden a plum tree, of which, for the last three or four years past, not any portion of the plums have been sound.

They were all bored or rotted, and fell from the tree before they were ripe.—Two or three other plum trees, of a different kind, which have borne less, shar-

ed the same fate. Last year, a young tree which stood near an ash-leach, and which had never borne before, produced a solitary plum that was sound. This suggested the idea that its preservation was owing to the ashes which had been scattered around the roots of the tree.—Following out the hint thus given, I last spring put ashes and lime with manure and salt around all my trees. The result has been, that they have all borne this year more than usual, and most of the fruit has been sound. This result I ascribe in part to the lime and ashes.—And the conclusion is obvious, that alkali enough will destroy the young insects that lie burrowed in the ground, or attempt to emerge from it in the spring.—If in this way sound plums can be raised it will be found a very easy way. Let some of our readers try the experiment and note the result.—*Horticulturist*.

Ivory is bleached white by exposing it to the sun, after being washed in soap suds and moistened from time to time, with clean soft water. A little whiting and soap, used together, is a good composition for cleaning the ivory handles of knives.—*S. American*.

How to be Beautiful.

VENUS, the embodiment of female beauty, was anciently represented as having arisen from the sea. This is only another way of saying that cleanliness is necessary to beauty. Without cleanliness, there can be no health, no beauty. A hand left unwashed for a few days becomes ugly and repulsive. If one can conceive of a face left unwashed even for a week, we must imagine something very far from beautiful. A face freshly washed looks more handsome than at any other time. But it is vain to wash a few square inches of skin we have in view, if the vastly larger area we cover with our dress is left from day to day, and from week to week, uncleared from its constantly accumulating impurities.—The health, and consequently the clearness and freshness of the skin, require that every square inch, nay every pore, should be in the best condition, and that cannot be, if a single pore be left clogged with the impure air which is continually passing from the system. But the action of water upon the skin, especially cold water, seems to be more important even than its first office of cleansing it from impurities. The rain bathes the lovely rose bush, washes it from dust, but it also refreshes and enlivens every leaf and petal. So the cold bath not only cleanses the skin from its impurities, but gives it tone, strength and glossy smoothness, and a fresh appearance like that of the rose just washed in nature's bath, a genial shower.

Bathing, in all countries where beauty has been esteemed, and health is the fountain of beauty, has been considered the first necessity of life. I have known many ladies, jaded, diseased, miserable, and looking as badly as they felt, become fresh, rosy, bright and healthy after a few months of systematic bathing—a

thorough purification and renovation of the skin, with a consequent vivacity, strength, grace of action and expression. This is such a remarkable effect of the water cure, which consists mainly in a certain regular and prescribed series of bathings, that ladies would resort to it for the improvement of their looks if the recovery of their health were not a necessary concomitant.

The relation of general and entire cleanliness to beauty, is simply this: no person can be beautiful without health—no person can be healthy unless the skin maintains its proper action—and the skin cannot act with vigor without the cleansing and tonic effect of a daily bath. People worry through life without it, but those who bathe every day enjoy life. And whenever you meet a clean, fresh, rosy beauty, with brightness in every look, and an elastic grace in every motion, with the light glancing in her laughing eyes, and the warm blood playing in her damask cheek, be sure that her skin is refreshed by frequent bathing in cold water.—*Water Cure Journal*.

To SAVE SEEDS.—We are frequently appealed to, to know how to save seeds. The English pea, and all of the pea tribe, including the beans, are already impregnated by the pea bug, whilst yet in their green state. We have taken much pains to find out the habits of this depredator. When the pod of the pea is just grown, and the peas are first formed, the bug, which all have seen issue from the pea, goes the full length of the pod, and with unerring aim, punctures through the pod to the young pea, and then deposits the egg in the wound, the wound heals directly, the pea matures, and unless the delicate mouth of some fair lady, or the more carnivorous jaws of monster man, has already devoured them, the bug, true to the instincts of its nature, eats his way out in the spring, ready again for his work of propagation. We have found the leaves of the China tree one of the best preventives against all of the insects that molest seeds. Pull the leaves fresh from the tree, and put the seeds in tight paper bags with the China leaf and berries, and there will be little trouble from any kind of insect. This should be done as soon as the seeds are gathered. Should seeds require drying, dry them in the shade.—We believe that China leaves and berries will effectually keep the weevil from corn, and from wheat; the experiment can be tried very cheap. Farmers, try it.—*Columbus Enquirer*.

Grafting Pears.

Owing to the scarcity of pear seeds and pear stocks, nurserymen are frequently tempted to set the scions of the pear on apple stocks. The pear grows as well and vigorously when so placed, as when in a pear stock, but this vigor is but temporary, and after a few years' bearing, the tree always fails, and can never by any effort be made to flourish. There seems to be a want of constitution, so to speak, which no attention or care can remedy. To set grafts, therefore, in

apple stocks, knowing the legitimate consequence, with a view to dispose of them to the ignorant and unenlightened in such matters is sheer dishonesty. Purchasers should be particular to enquire whether the stocks are apple or pear before they buy.

The best substitute probably, for the pear stock, is the root of the pear. These may be obtained in almost any desired quantity when removing pear trees from the nursery. Even the roots of old bearing trees may be resorted to for this purpose, as scions set in them do very well, and generally make good and healthy trees. Next to this, the quince stock should be chosen. Although the pear is dwarfed on it, the fruit is improved in flavor, and the trees come into bearing two or three years earlier than when set in the apple or pear stock. As the scion when so placed, does not develop according to its original nature, the trees make beautiful linings to a walk or border, and may be set eight feet apart. On the quince, as on the apple, the pear is comparatively short lived. It endures but a few years, and then as if smitten with some fatal and irremedial disease, fails not only to produce, but to respond to every effort made for its resuscitation, and soon dies. The white thorn gives a good degree of vigor to the pear scion, and is preferred to either of the aforementioned as being both more hardy and more closely allied in nature to the pear; but even this ought not to be used, only in cases of extremity and when pear stocks cannot possibly be procured.—*Ex.*

GUANO, THE PERUVIAN MANURE.—The rocky coast and inlets that exist in the desert district between Peru and Chili, are the great resort of millions of sea birds, gulls, &c., and their manure which has been accumulating for ages, now forms masses of great thickness, and is constantly increasing. As these birds feed principally on fish, and other marine matters, the guano, as the manure of these deposits is called, contains large quantities of phosphate of lime, ammonia and other products of animal matter, and as it rarely rains on this coast, the masses have not undergone the bleaching or draining they would have done in other places. Thus constituted, this substance is one of the most active manures; and has for a long time been used by the Peruvians in the culture of corn. A writer in a foreign journal says, in passing on horseback along the coast he frequently saw the natives driving an ass or two into the interior, with a package of this guano on each side, and when asked how they used it, they said they put a pinch of it in each hill of corn at the time of planting. A number of ship loads of this native poudrette have been carried to England, where it commands a high price as a fertilizer, and present indications denote that the importation of the article will hereafter be extensive. The English farmer understands his true interests when he extends his expenses for manures. From the United States he col-

lects ashes, bones, &c—from the Mediterranean, crude nitre, soda, &c., and now he has opened the mines of guano, on the shores of the far Pacific, all of which are used for fertilizing the soil, while the same substances, not less need, where procured, are mostly neglected.—*Ex*

How to make a Fortune.

TAKE earnestly hold of life, as capacitated for, and destined to a high and noble purpose. Study closely the mind's bent for a labor or profession. Adopt it early, and pursue it steadily, never looking back to the turned furrow, but forward to the new ground, that ever remains to be broken. Means and ways are abundant to every man's success, if will and action are rightly adapted to them. Our rich men, and our great men have carved their paths to fortune and fame by this eternal practice—a principle that cannot fail to reward its votary, if it be resolutely pursued. To sigh or repine over lack of inheritance, is uncommonly. Every man should strive to be a creator instead of an inheritor. He should bequeath instead of borrow. The human race, in this respect, want dignity and discipline. It prefers to wield the sword of valorous forefathers, to forging its own weapons. This is a mean and ignoble spirit. Let every man be conscious of the God in him, and the providence over him, and fight his own battles with his own good lance. Let him feel that it is better to earn a crust, than to inherit coffers of gold. This spirit of self-nobility, once learned, and every man will discover within himself, under God, the elements and capacities of wealth. He will be rich, inestimably rich, in self resources, and can lift his face proudly to meet the noblest among men.—*Ex*.

EDITOR'S TABLE.

The Seasons and Crops.

From almost every quarter that we have heard since our last issue, the drought has been most distressing, and prospects of crops truly gloomy. In our immediate neighborhood we have had fine rains since the first of August. We understand about Anderson and from that in a line to Abbeville and down the Savannah river on both sides to Augusta, planters are yet, 10th Auguts, without rain.

Wherever it has rained, the crops of corn have much improved in appearance, but except in late corn, the appearance is, we fear, deceptive, for although very many stalks have thrown out shoots and silks, yet the tassel generally having long since come out, has shed its pollen and in very many instances become dry. There can be no impregnation of the pistillate part of the plant, and hence there must be a failure of grain. In most fields, we suppose there will be some late stalks in bloom at the proper time and it will depend altogether upon the number of these what the late crop will be. From most of our exchanges we understand the cotton crop looks well notwithstanding the drought. The prospect with us however is, we think, a very light

crop. The plant is unusually small, and before and since the rains set in it has shed most of its bolls and forms. It is now taking a rapid second growth and if the rains hold out, will continue to run into weed with the production of not much fruit that will mature, unless the season should be prolonged beyond the usual time. And judging from the time the blooms first appeared, we may not expect this.

Our wheat crops were unusually fine, and although we shall make but little corn, yet we trust there will be in the country grain enough to bread the people, indeed, there seems to be really more distress with the corn sellers at this time than with any other class. The greatest difficulty will be in fattening our hogs and in getting stock generally through the next winter. For the first, however, we have a flattering prospect in the pea crop, which has withstood the drought better than any thing else, and now promises an abundant yield. Nor is anything better for wintering other stock than the pea vine, consequently we shall have to let mother earth suffer by depriving her of what she is justly entitled to, and gather all the vine that can be spared from our hog crop. We find our neighbors much in the spirit of sowing turnip seed in larger quantities than usual; this is as it should be. Sow every spot of ground you have to spare in turnips, rye and barley. Cut every spot (if only one rod square), of native grass you may find on your branch or creek bottoms.—Cure it well and salt away. Several such spots will winter a cow, and she will in some way express her gratitude to you before the "Ides of March," for even this coarse mersel. Sow rye and barley early that you may have all the benefit of a winter pasture from it. By request of a friend we republish in this number from the Southern Cultivator, a valuable article on barley. Read it and do likewise.

COMMUNICATIONS.—We have received from our invaluable correspondent "Broomsedge," a very interesting journal of Meteorological phenomena; circumstances oblige us to postpone its publication until another issue. The favors of our well known contributor, Dr. Phillips, and Cold Water, also R., and J. E. Brome, and the paper, for the mislaying of which we made apology in our last, are at hand. All shall appear in our next. It is gratifying that we are adding new names to the list of our contributors. We desire a "loss of none but a gain of many."

SOUTHERN LITERARY MESSENGER.—The last number of this monthly journal is as usual replete with interesting matter. Never was it in better hands than now. The selections are judicious and the criticisms always spicy and generally just. It is profitable and agreeable to step aside occasionally from the severer duties of life, and indulge a stroll for an hour in the refreshing and flowery paths of letters. Mr. Thompson, the editor, is a man of high attainments in literature, and gives evidence in every number of his familiarity with the classics. The Messenger is now in its twenty-seventh volume, and may it flourish on 'til it shall be said, "venerable," sheet "you have come down to us from a former

generation." This success it merits. It is the oldest literary periodical in the South and one of the oldest in the States. It is published, as formerly, in Richmond, Virginia.

The August number of De Bow's Review is on our table. Always acceptable.

The Memphis Daily Express we place on our exchange list with pleasure.

METEOROLOGICAL INSTRUMENTS.—For the convenience of those who may contemplate the purchase of instruments for observations in the changes of the atmosphere, we would say the cost of such instruments as are used in the Smithsonian Institute is as follows:

Barometer	\$30.00
External Thermometer	\$ 2.50
Psychrometer, or, Wet and Dry Thermometer	\$ 6.00
Rain Gauge, with two glass measures	\$10.00
Snow Gauge.	\$ 2.00
Wind Vane	\$ 3.00
Maximum Register	\$ 3.00
Minimum do	\$ 3.00



The Psychrometer is the same in principle as Mason's Hygrometer. Cheaper instruments may be had, but though very good, they are not altogether as reliable for accurate observation, particularly when a comparison with other registers is designed. Such Barometers as are in common use may be purchased for twelve or fifteen dollars. Standard instruments are much the best when the purpose is to make observations for a general use.

ACKNOWLEDGMENTS.—By the grace of Mrs. A. F. Lewis we have received a handsome compliment in the form of a basket of peaches, very large in size and as fine in flavor as we ever tested. We certainly rejoice that the banks of the Seneca continue to abound in the luxuries of life. We wish we had more space to express our gratefulness for the compliment of Mrs. L.

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Land for Sale in Pickens District.

 THE Subscriber offers for Sale  the Tract of Land on which he now resides, lying in the fork of Seneca and Tugaloo rivers, on the main road from Pendleton to Carnsville, and twelve miles from the former place, containing nine hundred (900) acres; about one hundred (100) of which is Beaverdam Bottom. The place has on it a large and comfortable Dwelling House, a good Kitchen, and all other necessary out buildings. The site is a beautiful one, the water fine, and the place as healthy as any in the District. To a purchaser the crop now growing on the place will be sold, if desired, on the most favorable terms.

--ALSO--

His place situated at the junction of Little river and Cane creek, eleven miles from Pendleton and five from Pickens C. H., containing One Thousand Acres; forty of which is bottom land and under cultivation. It has on it an excellent Mill Site and Fishery, a comfortable Dwelling House, and other out buildings. There is a good crop now growing on the place, the rent of which will be sold, if desired, to the purchaser of the place.

I. G. GAMBRELL.

Pendleton, S. C., Aug. 13, 1851.

The Laurensville Herald and Abbeville Banner will insert once a month for three months, and forward accounts.

I. G. G.

WHITMAN'S AGRICULTURAL WAREHOUSE, BALTIMORE, MD.



THE UNPRECEDENTED AND INCREASING INTEREST manifested in AGRICULTURE, and the liberal encouragement which has been given the subscriber, has induced him to engage in the MANUFACTURING business on an EXTENSIVE SCALE. His Factory and Warehouse is now the largest in Baltimore, and probably the most extensive in this country.

His stock for 1851 will consist in part of:
10,000 PLOUGHS embracing his PREMIUM PLOUGHS, and nearly every variety in use from Maine to California.
600 WHITMAN'S PREMIUM CULTIVATORS, at \$4, \$5 and \$6 each.
150 HARROWS, at 6, 7, 8, 9, 10, 11 and \$12 each.
500 PREMIUM STRAW, HAY and CORN-STALK CUTTERS, at 10, 12, 17, 23, 23 and \$37 each.
100 PREMIUM FODDER CUTTERS and GRINDERS, at 30, 35, and \$60.
100 PREMIUM CORN AND COB CRUSHERS, (the best in use) at \$50.
2000 WHITMAN'S PREMIUM CORN-SHELLERS, at 10, 16 and \$18.
2000 PREMIUM WHEAT FANS, GRANT'S and BAMBOROUGH'S (which cannot be equalled) at 25, 28, 30, 32, and \$35.
100 SWEEP POWERS of the most improved plans—Price 90 to \$120.
100 ONE WHEEL or EDDY POWERS, enlarged and improved.—Price \$100.

300 WHITMAN'S PREMIUM THRESHERS the cylinder of which we will warrant to last 100 YEARS, in constant use. This machine breaks less grain and threshes cleaner and faster than any other machine in use.—Price 45 and \$50. Additional price for STRAW CARRIERS, \$15.

100 WHEAT DRILLS which are perfect in their operation, and save enough in the seeding of fifty acres to pay the cost of the Drill.—Price \$100.

100 WROUGHT IRON RAILWAY HORSEPOWERS which received the FIRST PREMIUM at the Maryland State Fair in 1849 and 1850.—Price \$100

100 CORN-PLANTERS, a great labor-saving implement.—Price \$20

REAPING MACHINES, the best in use, price \$125.

50 FIELD ROLLERS, which received the FIRST PREMIUM at the State Fair, at 30, 40 and \$50.

BURR STONE CORN MILLS—Price \$90 to 120.

A large stock of Chain and Suction Pumps, Water Rams, Ox-Yokes, Root-Pullers. Sausage-meat Cutters and Stuffers, Cow-Milkers, Churns, Post-hole Augurs, Agricultural Furnaces, Hoes, Rakes, Shovels. Spades, Garden and Horticultural Tools, and every description of Farm implements found in this country.

—ALSO—

FIELD and GARDEN SEEDS of every variety.

FRUIT and ORNAMENTAL TREES. GUANO, and all the various kinds of FERTILIZERS in use, all of which will be sold at WHOLESALE and RETAIL as low as can be had in the United States, the quality considered.

A Catalogue of 120 pages, containing a description of our Implements and Machinery, will be forwarded gratis, if applied for by mail post paid—and all orders accompanied with cash or satisfactory references, will meet with prompt attention.

EZRA WHITMAN, JR.
corner of Light and Pratt Sts.,
BALTIMORE, MD.

January 1, 1851.

SUBSOIL PLOUGHS.



THE undersigned is Agent for the sale of Dr. BROYLES' CELEBRATED SUBSOIL PLOUGH, the utility of which it is unnecessary here to mention, as its superiority over any other similar kind is proverbial.

A. M. BENSON.
Commission Merchant.
Hamburg, S. C., July, 1851. 7-tf

NEW COMMISSION HOUSE, HAMBURG, S. C.

THE undersigned having been engaged in a General Commission and Factorage Business for the last fifteen years in this place, takes pleasure in informing his OLD CUSTOMERS AND THE PUBLIC GENERALLY, that he has opened a House to transact said business in all its various branches.

The long experience he has had in the above business, enables him to say with confidence, that he will do as well for those who patronize him as any other House in the United States or California, and that no effort shall be left untried on his part to do BETTER.

Consignments of COTTON and all other species of Produce, as well as MERCHANDISE for the country, will have his undivided and personal attention, for which he hopes his labors may be beneficial both to his constituents and himself.

A. M. BENSON.
Hamburg, July, 1851. 7-R.

THE SPANIARD.

THIS magnificent SPANISH JACK-ASS, who has just made his entrance into America, will, as soon as he recovers from the effects of a long sea voyage, be ready for the work of procreation. He will have but one Station, and that at my Plantation, on Seneca River, Four Miles North-west of Pendleton Village.

An opportunity of rare occurrence is now offered the country, for the propagation of a splendid stock of Mules, whose superiority for agricultural purposes, will be admitted by all who have given them a fair trial.

In relation to this excellent JACK, suffice it to say,—he cost a great deal of money,—and for size form and action, was one among five of the best that could be procured in Spain by a special agent.

Pre-engagements should be made by all those who are anxious to put to him in the Fall, as his number will be limited to a few.

He will be let to a few Mares during his recovery this Summer.

TERMS.

Twelve dollars Insurance for Mares.

Twenty-five dollars Insurance for Jennets.

J. W. CRAWFORD.
Cold Spring, July, 1851. 8-tf

GRASS and GARDEN SEED.

5000 Bushels Herds Grass Seed.
500 " Prime Clover Seed,
500 " " Timothy Seed,
20 " " " Luerne Seed.
30 " " Turnip Seed, New Crop.
All of which will be sold at the lowest Market price, by C. B. ROGERS, At his Seed and Agricultural Warehouse, No. 29, Market St., Philadelphia.
July, 1851. 8-c

C. B. ROGERS

SEED AND AGRICULTURAL WAREHOUSE,
No. 29, MARKET ST. PHILADELPHIA,

WHERE the subscriber has on hand the most extensive assortment of Agricultural Implements of his own manufacture, ever offered in this city. He would call the attention of Planters to his new CAST STEEL, EXTENDING POINT, SELF-SHARPENING, SURFACE and SUBSOIL PLOW of his own invention, which for ease of draft and durability is well adapted to southern Planting. He has also an extensive assortment of Grass and Garden Seed, of his own raising and importing from the best gardens in Europe. All goods or seed warranted to be as represented by C. B. ROGERS.
July, 1851, 8-tf